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## ABSTRACT

This report contains information about the legislative and regulatory framework for Section 131 (a) of part C of the U.S. Commissioner of Education's Vocational Education Research Programs; the planning and its procedures leading to the determination of the program priority areas for fiscal year 1976 and the transition quarter; the processes used to implement the award program for this fiscal year; the award outcomes in terms of an overview of the purposes and expected results of the funded projects; and abstracts of the individual projects. In addition, several special interest projects of national significance are listed both for fiscal year 1976 and the transition quarter. Synthesis papers and abstracts of funded projects in competitive grant competition are grouped under the areas of adult vocational education, postsecondary vocational education, individualization and modularization of instructional materials, and special needs populations. (HD)

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ED136060

ADVANCING VOCATIONAL EDUCATION THROUGH  
RESEARCH AND DEVELOPMENT

Applied Research Projects Supported in Fiscal Year 1976 and the  
Transition Quarter (July 1, 1976 - September 30, 1976) Under Authority  
of Section 131(a) of Part C of the Vocational Education Amendments of 1968

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November 1976

Research Branch  
Division of Research and Demonstration  
Bureau of Occupational and Adult Education  
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## FOREWORD

The Vocational Education Act authorizes the Office of Education to administer vocational education research and demonstration programs. Three parts of the Act are coordinately managed to form the program. Part C authorizes support for research, including nearly all of the functions of the R&D enterprise. Part D authorized support for exemplary demonstrations, related activities.

This is a report of the U.S. Commissioner of Education's discretionary Vocational Education Research Program for fiscal year 1976 and the transition quarter which is authorized by Section 131(a) of Part C of the Vocational Education Amendments of 1968 Act. Half of the funds appropriated for Part C are given directly to the States and Territories on a formulae bases for their discretionary use. The States' half of the appropriated funds may be used to support up to 75 percent of the cost of Research Coordinating Units and up to 90 percent of the cost of the projects. The Fiscal Year 1976 appropriation for the State grant portion of Part C was \$9,000,000. The portion for the Commissioner of Education's discretionary funding may be used to make grants and contracts for supporting applied and developmental studies, as well as curriculum development, demonstrations, evaluations, and dissemination. Cost sharing is required for Part C projects.

The Commissioner's Fiscal Year 1976 and transition quarter appropriations totalled \$11,202,975 was awarded to 100 projects resulting from a competitive grant announcement made in the Federal Register on November 10, 1975. In addition, 24 projects of special interest to the U.S. Commissioner of Education were awarded. Through competitive contracts, 8 awards with the Small Business Administration, and on a sole source basis.

The Federal government is changing its current fiscal year of July 1 to June 30 to October 1 to September 30th. Consequently, a transition quarter was created from July 1, 1976 to September 30, 1976. The Vocational Education Research Program received \$4,500,000 for this period of time. The Commissioner received \$2,202,975 for this quarter and on May 21, 1976 a Notice was published in the Federal Register indicating that these funds would be used to support projects of

national significance from the FY '76 competition and projects of special concern to the Commissioner.

The FY '76 Grant Competition announcement identified four priority areas for the receipt of applications. Eligible applicants include all parties except individuals, including all public agencies and institutions and all private organizations and institutions, both non-profit and profitmaking.

This report contains information about the legislative and regulatory framework for Section 131(a) of Part C Research Program; the planning and its procedures leading to the determination of the program priority areas for fiscal year 1976 and the transition quarter; the processes used to implement the award program for this fiscal year; the award outcomes in terms of an overview of the purposes and expected results of the funded projects, and abstracts of the individual projects. In addition, several special interest projects of National significance are listed both for FY '76 and the transition quarter.

The effective work of the staff of the Research Branch in accomplishing the tasks described herein, and many related ones, is hereby acknowledged with special thanks. The professional staff are Louis Anderson, Velma Brawner, Richard DiCola, David H. Pritchard, and Jack A. Wilson.

Glenn C. Boerrigter  
Chief, Research Branch

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THEREFORE, ANY PROGRAM OR ACTIVITY RECEIVING FINANCIAL ASSISTANCE FROM THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE MUST BE OPERATED IN COMPLIANCE WITH THIS LAW.

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## PREFACE

Vocational education has been of special interest and concern to the Federal Government for over 100 years. The Federal Government has consistently recognized the importance of vocational education in terms of preparing individuals in occupational competency as producing skilled persons to meet National and State manpower needs.

The number of persons involved in vocational education has expanded tremendously during the past decade and the trend is continuing. An increasing percentage of youth at the elementary and secondary levels are opting for vocationally oriented curriculums. At the post-secondary level, institutions that provide occupational education are bulging with students who desire occupational training in preparation for employment.

Technological advances, increasing industrialization, expansion of employment in the service industries, and changing manpower requirements across the Nation necessitate up-to-date planning and management information systems for vocational education. Decision oriented studies, development, and demonstration programs are needed to improve and extend existing vocational education programs so that National concerns and individual needs are met. Vocational Education Research and Demonstration Programs are required to produce information and materials for the complex vocational education systems that exist in the 56 States and Territories.

Such information and material must be directly relevant and usable by the planners and practitioners in vocational education.

This report provides an account of how the U.S. Office of Education's discretionary Vocational Education Research Program for fiscal year 1976 and the transition quarter was planned and implemented under the administration of the Bureau of Occupational and Adult Education.

Howard F. Hjelm, Director  
Division of Research and Demonstration

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### Legislative-Regulatory Provisions

Regulations pertaining to the administration of the research program under Part C of the Act are contained in the General Provisions for Programs - Administrative and Fiscal Requirements - (45 CFR Part 100a) as published in the Federal Register on November 6, 1973 (38 F.R 30654, 30662). Additional proposed regulations pertaining specifically to the Part C research program are contained in Volume 40, No. 217 of the Federal Register which was published November 10, 1975, (pp. 52405-52407).

Regulation 100a. 26 - Review of Applications - set forth basic procedures and criteria to be applied to review of applications received under the vocational education research program, among others. It reads as follows:

(a) The Commissioner, prior to disposition of applications for grants or contracts, shall have discretion to obtain the review of a panel experts (except where review by such a panel is required by statute). Any such review will be in addition to the review of an application by the Commissioner in accordance with such procedures as he may establish.

(b) Review by the Commissioner and by the panel of experts will take into account the following factors (in addition to such other criteria as may be prescribed by statute or regulation):

(1) The need for the proposed activity in the area served or to be served by the applicant;

(2) Relevance to priority areas of concern as reflected in provisions contained in the applicable Federal statutes and regulations;

(3) Adequacy of qualifications and experience of personnel designated to carry out the proposed project;

(4) Adequacy of facilities and other resources;

(5) Reasonableness of estimated cost in relation to anticipated results;

(6) Expected potential for utilizing the results of the proposed project in other projects or programs for similar educational purposes;

(7) Sufficiency of size, scope, and duration of the project so as to secure productive results; and



(8) Soundness of the proposed plan of operation, including consideration of the extent to which:

(i) The objectives of the proposed project are sharply defined, clearly stated, capable of being measured;

(ii) Provision is made for adequate evaluation of the effectiveness of the project and for determining the extent to which the objectives are accomplished;

(iii) Where appropriate, provision is made for satisfactory inservice training connected with project services; and

(iv) Provision is made for disseminating the results of the project and for making materials, techniques, and other outputs resulting therefrom available to the general public and specifically to those concerned with the area of education with which the project is itself concerned.

Application review criteria. The following criteria will be utilized in reviewing formally transmitted applications. These criteria are consistent with section 100a.26, Review of Applications, in the Office of Education General Provisions for Programs, published in the FEDERAL REGISTER on November 6, 1973. A segment or segments of an application should address each criterion. Each criterion is weighted and includes the maximum score that can be given to an application in relation to the criterion. The maximum score for the criteria total 100 points and the maximum weight for each criterion is listed below. Applications that receive less than 30 points will not be funded.

<u>Criteria</u>	<u>Maximum Score</u>
(1) <u>Priority area.</u> -- The application is adequately focused on an announced priority area.	10
(2) <u>Need, problem, and literature review.</u> -- The application clearly: (a) describes the need for the project and provides specific evidence of the need; (b) analyzes and describes the problem rather than symptoms of the problem; (c) describes a strong conceptual framework for the proposed work with an adequate review of current literature and other related efforts which support the need, problem, objectives, and plans.	10
(3) <u>Objectives.</u> -- The technical objectives are educationally significant, sharply defined, clearly stated, capable of being attained, and are measurable.	10

(4) Plan -- The application clearly describes how the objectives will be accomplished by: (a) the overall design for the proposed project, (b) the specific procedures of each segment of the design in terms of how each technical objective will be undertaken and accomplished; (c) the project management plan which shows how and when personnel and resources will be utilized to accomplish each technical objective, (d) the design and procedures for the dissemination of the results and end products, and (e) specific plans for eliminating sex bias in all aspects of the proposed work.

When appropriate, the plan includes: (a) precise definition of terms, (b) description of the characteristics and numbers of subjects, (c) valid evaluation procedures that include control groups, (d) sampling plan, (e) statistical and analytical procedures, and (f) plans for evaluating project outcomes.

35

(5) Results and End Products. -- The application clearly describes (a) the educational significance of the proposed results and/or products, (b) what will be delivered to the government, (c) the format in which the results or product will be delivered to the government, and (d) the form in which results and products will be developed for transportability purposes to user populations.

15

(6) Applicant's Staff Qualifications and Experience -- The application clearly describes (a) the qualifications of the project director, key professional staff and consultants, (b) specification of the work to be performed by the project director, key staff, and consultants, (c) time commitments planned for the project by the project director, key staff, and consultants, and (d) evidence of past experience on the part of the proposed applicant in similar or related projects, including a narrative of that relationship.

15

(7) Budget and Institutional Commitment. -- The application provides (a) a clear statement of cost-sharing which is substantiated by line items in the proposed budget, (b) evidence of the provision of adequate facilities and equipment, (c) reasonable cost-effectiveness in respect to the expected results, and (d) documented assurances of support from cooperating agencies and institutions.

5

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Total 100

## Determining Research Priorities for the Fiscal Year 1976

Early in 1973, the Deputy Commissioner for Occupational and Adult Education established Bureau-wide planning procedures which included determining the priorities for the vocational education research program of the Bureau for fiscal year 1974.

One major dimension of this planning process for FY 1974, FY 1975, and again FY 1976 was the establishment of broad goals for the Bureau as a whole, and goal-responsive objectives for main program components of the Bureau. Among the objectives which were established for the Bureau of Occupational and Adult Education were the following ones to which the Vocational Education Research Program is committed:

1. To improve and extend existing programs and develop new approaches for adult, vocational, and manpower education
2. To improve and expand the training for individuals having special needs, including the educationally disadvantaged, the unemployed and underemployed, the gifted, the cultural minorities and to bring about the integration of handicapped students into regular training programs.
3. To improve and extend occupational counseling, guidance, job placement, and follow-up services in elementary, secondary, and postsecondary programs.
4. To improve the State administration of occupational, vocational, adult, and manpower education.

It should be noted that the Vocational Education Research Program, is a mission oriented program that helps the Deputyship to accomplish independent goals of its own. With this management orientation, a primary requirement of the Vocational Education Research Program was that of determining the specific priorities for fiscal year 1976 funding from within the complete list of multi-program objectives established in support of Deputyship goals.

The selected objectives cited above, and the publicly announced funding priorities to be cited below, involved a second major dimension of the planning process - namely, that of obtaining perspective, advice, and recommendations from especially knowledgeable and cognizant groups. The Research Committee of the

State Directors of Vocational Education, and The Research and Evaluation Committee of the National Advisory Council on Vocational Education, staffs of the Department of HEW's Regional Offices, the National Institute of Education, and a wide variety of special interest groups were major contributors to this aspect of the process.

Upon reviewing the advice and recommendations that were obtained about priorities for the fiscal year 1976 Vocational Education Research Program, the Deputy Commissioner for Occupational and Adult Education selected the priorities to be pursued.

The four research priorities selected for 1976, as subsequently announced in the Federal Register on November 10, 1975, are as follows:

(a) Adult vocational education. Adults who are underemployed, about to become unemployed, or unemployed, should be a prime target population for vocational education. Vocational education programs, both public and private, need to be improved and expanded to adequately serve the training needs of this adult population.

Applications within this priority that address the areas listed below must effectively demonstrate plans to eliminate sex bias in all aspects of the proposed work. The Commissioner of Education is authorized to support applied studies and development projects that address one or more of the following three specific areas:

(1) Access to vocational education by employees. Vocational education should assist in the development of employees in cooperation with business, industry and labor. Such efforts should result in improved access to vocational education by employees from goods-producing industries, service industries, and public agencies. Applications may include such items as:

(i) Assessment of previous research endeavors and administrative practices that have sought to identify, analyze, and implement cooperative efforts between vocational education, business, labor, and industry;

(ii) Assessment and/or development of guidance and counseling programs that incorporate career progression plans for employees;

(iii) Assessment and or development of programs that include strategies such as educational leave and tuition aid, and;

(iv) Development of exemplary coordination activities between vocational education programs and public employment training programs funded under the Comprehensive Employment Training Act.

(2) Competency based adult vocational education. The movement towards competency-based education is an important concern for the future. Applications are encouraged that would expand competency-based adult vocational education. These applications may include the following activities:

(i) Assessment of research results concerning competency based education for adults; and

(ii) Development of adult vocational education competency-based programs that assess learner-competencies, identify learner needs, and prescribe learner activities.

(3) Vocational education in entrepreneurship. There is a need to expand vocational education programs to provide adults entrepreneurial competencies which facilitate self-employment. Applications should propose the development of instructional or curriculum materials for use in open-entry and open-exit programs.

(b) Postsecondary vocational education. During the past decade vocational education has expanded tremendously at the postsecondary level in programs that do not offer baccalaureate degrees at public, private, and proprietary institutions.

The Commissioner is authorized to support applied studies and development projects which focus on one or more of the areas described below. Applications which address the areas listed below must effectively demonstrate plans to eliminate sex bias in all aspects of the proposed work. Applications may address one or more of the following areas:

(1) Modularization or individualization of vocational education programs in new and emerging areas such as energy and environment where labor shortages exist for technically trained persons;

(2) Develop and evaluate programs that serve the needs of students in inner city and/or rural areas;

(3) Identify and evaluate exemplary programs that reduce the dropout rate from vocational education at the postsecondary level;

(4) Develop and/or evaluate cooperative agreements between public, private, proprietary postsecondary institutions and business, industry, and labor; and

(5) Develop and field test criteria, instruments, and procedures to assess productivity and impact of postsecondary vocational education programs.

(c) Individualization and modularization of instructional materials. The pressure for enrolling more students and a greater variety of students in vocational education is increasing. In order to meet this enrollment demand and to provide more effective instruction in a greater variety of educational settings, it is necessary to use technology oriented delivery systems.

The Commissioner is authorized to support applied studies and development projects of the type described below. Applications within this priority area must effectively demonstrate plans to eliminate sex bias in all aspects of the proposed work. The proposed work should address each of the following points:

- (1) Individualize or modularize instructional materials for use with a specific technology oriented delivery system; and
- (2) Field test and evaluate the instructional materials.

(d) Special needs populations.

There are special populations which have unique needs with respect to vocational education. This priority is concerned with:

- (1) Populations which require bilingual vocational education;
- (2) Populations in correctional institutions;
- (3) Migrant populations; and
- (4) Handicapped populations.

The Commissioner is authorized to support applied studies and development projects that focus on one or more of the areas described below. Applications which address the areas listed below must effectively demonstrate plans to eliminate sex bias in all aspects of the proposed work.

(1) Bilingual vocational education - The proposed work may address one or more of the following points;

(i) Develop improved methods of teaching students with limited English speaking ability;

(ii) Develop instructional material for use by teacher educators who teach either preservice or inservice vocational education. These instructional materials should be designed to aid the teacher educator how to effectively teach vocational education to students who have a limited English speaking ability; and

(iii) Develop vocational education curriculum materials for use by students who have limited English-speaking ability.

(2) Correctional vocational education - The proposed work may assess the need for vocational education programs, evaluate existing vocational education programs or develop new vocational education programs for persons in correctional settings.

(3) Vocational education for migrants - The proposed work should assess the need for vocational education programs for migrants, evaluate existing education programs serving migrants, or develop and evaluate new programs for delivering vocational education to migrants.

(4) Vocational education for the handicapped - The proposed work may assess the needs and barriers to mainstreaming or integrating of appropriate handicapped students into regular vocational education programs, develop criteria for the identification of such handicapped students, or evaluate existing vocational education programs that mainstream handicapped students.

#### Implementation of the Fiscal Year 1976 Program

The November 10, 1975 announcement in the Federal Register, in addition to setting forth the four priority areas proposed as "additional criteria" applicable to the program for 1976, called for applications to be submitted by January 9, 1976 and listed the approximate amount of funds anticipated for allocation to each State under Section 131(a) of Part C of the Act. This



announcement of "additional criteria" was confirmed by republication in the Federal Register on February 27, 1976.

With the publication of the Additional Criteria for Selection of Applicants on November 10, 1975, the following procedures were initiated. These included the following procedures:

- Identify and select personnel for application review panels.
- Receive and log applications referred by the Office of Education's Application Control Center
- Conduct panel review of applications for technical merit
- Recommend and obtain approval of applications for funding
- Submit approved applications for negotiation of grants
- Award grants
- Notify Applicants not recommended for funding

Review panels composed of Federal and non-Federal technical reviewers were established to evaluate applications that were officially transmitted and received by the announced deadline for receipt of applications which was January 9, 1975.

The following criteria were applied in the selection of panel members and formation of panels for the review of applications for competitive awards in FY 1976. The criteria were applied as general guidelines and not as rigid standards in the formation of individual panels.

1. Criteria for Formation of Each Panel

- a. Panels will consist of at least six voting members with three of the individuals being Federal employees and three being non-Federal reviewers plus the chairperson and the executive secretary (see B and C below).
- b. The chairperson will be the branch chief, or designated representative, and will be a non-voting member.
- c. The program officer will serve as executive secretary and resource person to the panel and will not be a voting member.
- d. At least two of the voting members will be women.
- e. At least one of the voting members will be a representative of a minority group.

- f. Attention will be given to avoiding potential conflict of interest for the reviewers.

2. Criteria for Expertise of Voting Members for Each Panel

- a. Three of the panel members will be content specialists.
- b. One of the panel members will be a research, demonstration, or curriculum development design specialist.
- c. One of the panel members will be an evaluation specialist.
- d. One of the panel members will be a generalist, including users and consumers of the R&D products.

3. Criteria for Selection of Reviewers across all Panels

- a. Attention will be given to geographical spread.
- b. Attention will be given to institutional spread and type of institution.
- c. Attention will be given to not having two field readers from the same institution.

Applications Received and Number Selected  
for Funding in Fiscal Year 1976

Table 1 indicates that 346 applications were received for consideration under the Fiscal Year 1976 Vocational Education Research Program. These applications came from five major types of institutions, and varied in the number relevant to the four priority areas:

Table 1. Applications Received by Type of Institution and Priority Areas

Type of Institution	Adult	Post secondary	Individ-ualization	Special Needs Population	TOTALS
Local Educa-tional Agency	13	9	1	20	58
State Educa-tional Agency	8	12	12	15	77
College or University	30	35	17	38	120
Community College or Technical Inst.	12	20	2	7	41
Non-Profit Organization	16	6	9	20	51
Profit Organization	9	8	3	9	29
TOTALS	88	90	59	109	346

Applications that were referred to the panels were independently read and evaluated while utilizing technical review forms. These reviews were written by members of the panel prior to meeting jointly as a panel at the U.S. Office of Education in early March 1976. Each panelist completed an Application Technical Review Form for each application, and brought his or her copy of the application and the completed Technical Review Form to the panel meeting.

The meetings of the several panels took place concurrently, each with a non-voting Office of Education representative as panel Chairperson, and another as an Executive Secretary. At each panel meeting, the Chairperson:

- described procedures for discussing, recording comments, and rating applications
- stressed the necessity for panel members to withdraw from the meeting and the review and rating of any application in which he or she had a possible conflict of interest
- conducted discussions of applications in numerical order, encouraging discussion on the part of each voting panel member to promote the fullest possible perspective on each application
- called upon the Executive Secretary to read any comments or recommendations on the individual application received from the States and/or the DHEW Regional Offices
- Following the panel discussion of each application, each panelist indicated a final application score for the application under discussion on the Application Technical Review Forms
- Following the panel meeting, the Chairperson and Executive Secretaries tabulated the individual panel members score for each application in order to obtain a panel score and subsequent rank for each application reviewed by the panel.

Subsequent to the panel meetings, a "slate review" procedure was conducted which involved the Chief of the Research Branch, Executive Secretaries of the panels, the Director of the Division of Research and Demonstration, the Associate Commissioner of Adult, Vocational, Technical and Manpower Education, and the Deputy Commissioner of the Bureau of Occupational Education. During this slate review progress, the panel rank of applications, the application requested budgets, and the State allotments were reviewed in order to:

1. Approve the best applications from each of the four priority areas, and
2. Fit approved applications into the available State allotments.

To carry out the results of this slate review process, the project officer (Executive Secretary) for each priority area prepared recommendations for negotiation for each application approved for funding. These "requests for negotiation" were then submitted to the Division of Contracts and Grants for actual negotiations and making of the awards.

Applicants that were not selected for funding were notified with original letters containing the reason(s) why the applications were not selected for funding. These letters were sent at the same time that the "requests for negotiation" were sent to the Division of Contracts and Grants.

The number of applications received for funding consideration for the FY 1976 by the Vocational Education Research Program are listed by State in Table 2. The number of applications funded by type of institutions are indicated in Table 3.

Table 2. Applications by State and Outlying Area

State or Outlying Area	Number	State or Outlying Area	Number
Alabama	9	Nevada	2
Alaska	1	New Hampshire	4
Arizona	1	New Jersey	12
Arkansas	1	New Mexico	5
California	22	New York	10
Colorado	13	North Carolina	13
Connecticut	8	North Dakota	1
Delaware	3	Ohio	17
Dist. of Col.	6	Oklahoma	4
Florida	7	Oregon	3
Georgia	4	Pennsylvania	19
Hawaii	2	Rhode Island	1
Idaho	2	South Carolina	5
Illinois	21	South Dakota	3
Indiana	4	Tennessee	8
Iowa	2	Texas	15
Kansas	4	Utah	4
Kentucky	12	Vermont	1
Louisiana	1	Virginia	17
Maine	2	Washington	9
Maryland	7	West Virginia	4
Massachusetts	9	Wisconsin	14
Michigan	13	Wyoming	3
Minnesota	3	American Samoa	0
Mississippi	4	Guam	0
Missouri	5	Puerto Rico	2
Montana	2	Trust Territory	0
Nebraska	2	Virgin Islands	0
		TOTAL	346

Table 3. Applications Selected for Funding in the Competitive Grant Competition

by  
Type of Applicant and Priority Area

Types of Institutions	Adult	Post secondary	Individ- ualization	Special Needs Populations	TOTALS
Local Educa- tional Agency		1	1	2	4
State Educa- tional Agency	5	9	7	2	23
College or University	11	19	5	15	45
Community College or Technical Institute	1	7	1	2	11
Non-Profit Organization	2	2	2	3	9
Profit Organization	2	3		3	8
TOTALS	21	36	16	27	100

Synthesis Papers and Abstracts of Projects  
Selected for Funding in Competitive Grant Competition



## ADULT VOCATIONAL EDUCATION

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## ADULT VOCATIONAL EDUCATION

### Introduction

In awarding grants from Fiscal Year 1976 funds available under Section 131(a) of Part C of the Vocational Education Act, the Commissioner of Education established as one of the four priorities, "Adult Vocational Education".

The written priority area statement which appeared in the Federal Register is as follows:

"Adults who are underemployed, should be a prime target population for Vocational Education. Vocational education programs, both public and private need to be improved and expanded to adequately serve the training needs of this adult population.

Applications within this priority that address the areas listed below must effectively demonstrate plans to eliminate sex-bias in all aspects of the proposed work. The Commissioner of Education is authorized to support applied studies and develop projects that address one or more of the following three specific areas;

1. Access to vocational education by employees. Vocational education should assist in the development of employees in cooperation with business, industry and labor. Such efforts should result in improved access to vocational education by employees from goods-producing industries, and public agencies. Applications may include such items as:

a. Assessment of previous research endeavors and administration practices that have sought to identify, analyze, and implement cooperative efforts between vocational education, business, labor and industry;

b. Assessment and/or development of guidance and counseling program that incorporate career progression plans for employees;

c. Assessment and/or development of programs that include strategies such as educational leave and tuition aid, and;

d. Development of exemplary coordination activities between vocational education programs and public employment training programs funded under the Comprehensive Employment Training Act."

2. Competency-based adult vocational education. The movement towards competency-based education is an important concern for the future. Applications are encouraged that would expand competency-based adult vocational education. These applications may include the following activities.

a. Assessment of research results concerning competency-based education for adults; and

b. Develop adult vocational education competency-based programs that assess learner-competencies, identify learner needs, and prescribe learner activities.

3. Vocational education in entrepreneurship. There is a need to expand vocational education programs to provide adults entrepreneurial competencies which facilitate self-employment. Applications should propose the development of instructional or curriculum materials for use in open-entry and open-exit programs.

#### Analysis of Applications

Twenty applications were funded, these applications covered all three of the sub priority areas. No applications was funded that did not relate to a general priority area or to one of the sub-parts.

Adult Vocational Education applications were funded under all three sub-areas priorities. Nine under the sub-priority "Access to vocational education by employees", five under the sub-priority "Competency-based adult vocational education", and six under the sub-priority "Vocational education in entrepreneurship".

Table I indicates the sub-priority areas that each award addressed and Table II indicates the National, State, or Local Significance of each award. Many of the supported projects deal either with problems of national importance or project end products that could be used nationally. However, this is not the context in which national significance is being used in this paper. A nationally significant project is one that is deliberately designed for national utilization as indicated by the procedures being employed and the individuals involved.

The majority of the projects will be conducted within a State for State use. Only one project was clearly designed for local use.

Priority Area

	Access to Vocational Education by Employees	Competency-Based Adult Vocational Education	Vocational Education in Entrepreneurship
498AH60004	X		
60019	X		
60027	X		
60032		X	
60054			X
60059		X	
60090			X
60108		X	
60119	X		
60141			X
60177	X		
60178		X	
60199			X
60218	X		
60237		X	
60248	X		
60269	X		
60278			X
60279	X		
60301	X		
60330		X	

Table II  
National, State, or Local Educational Significance

	National	State	Local
498AH60004		X	
60019		X	
60027		X	
60032		X	
60054		X	
60059		X	
60090		X	
60108		X	
60119		X	
60141		X	
60177		X	
60178		X	
60199	X		
60218		X	
60237		X	
60248		X	
60269			X
60278		X	
60279	X		
60301		X	
60330		X	

Table III summarizes the major projective by institution in which the grant was made as well as identifying several project procedures.

Table IV indicates the characteristics of the trainees.

Table VI indicates the type of proposed end product that is expected by project number.

Table III  
Project, Objectives and Procedures

Development Projects or Objectives	Type of Institution	In- Service	Pre- Service	Self- Pacing	Open Entry Exit	Curriculum Substance Out Reach Programs	Projects to be tested
Development Project	Comm. Coll.	*					
Developing Leadership	University	*					
Employer Training	Comm. Coll.		*				
Training Instructors	Dept. of Ed.		*				
Personnel Development	Comm. Coll.	*					*
Teacher Delivery Sys.	University		*				*
Entrepreneur Training	Dept. of Ed.		*				*
Owner Manager Training	University		*				
Provide Placement	University		*				*
Staff Development	Dept. of Ed.	*		*			
Curriculum Development	County Voca- tional Tech- nical Center	*			*	Solid State Electrical Controls	*
Curriculum Development	State Depart- ment of Edu- cation	*	*	*	*	Water Treat- ment Tech- nicians	*
Development Project	University	*	*				*
Career Planning	University	*					
Identification Project	University		*				*
Entry Into Apprentice.	Private Org.		*				
Development Project	Indian Reser.	*				Identify Edu. Needs	
Entrepreneur Project	University	*	*		*		*
Career Changes	Tech. Ed. Ctr.	*					*
Placement Models	Dept. of Ed.		*				
Expanding Competencies	University		*				

Table IV  
Project Training Methods

Project Number	State	Leadership	Management	Computerized	Business & Industry	Competency-Based	Guidance & Counseling	Performance Based	Entrepreneurship
004	Wash.						*		
019	Miss.	*			*				
027	Org.		*		*				
032	Ala.					*		*	
054	Neb.				*				*
059	Maine					*		*	
090	Ark.				*	*			*
108	Va.		*		*	*			
119	Tenn.			*			*		
141	Calif.				*	*			*
177	W.Va.					*			
178	W.Va.					*			
199	Minn.								*
218	Ohio						*		
237	Ohio					*			
248	Va.				*		*		
269	Wyo.								
278	Okl.				*	*	*		*
279	Mass.		*		*				
301	Vt.						*		
330	Nev.					*			

Table V  
Characteristics of Trainee

Urban	Rural	Population	Employed	Unemployed	Handicapped	Correction	Men	Women	Men & Women
*	*	General	*						*
	*	General	*						*
	*	General	*						*
*		General	*						*
*	*	General	*						*
	*	General	*						*
*		General	*	*					*
	*	General	*						*
*		General		*					*
*		Women						*	
*	*	Men	*	*			*		
*	*	Men	*	*					*
		Women							*
*		General	*					*	
*		General		*					*
*		Women		*				*	
	*	Indian	*						*
*		General	*						*
*		General							*
	*	General							*
	*	General							*



Table VI  
Type of End Product

Project Number	Curriculum	Modularized	Manuals	Models	Catalog	Packaged Materials
004 Washington				*		
019 Mississippi						
027 Oregon						
032 Alabama				*	*	
054 Nebraska						*
059 Maine				*		*
090 Arkansas	*	*				*
108 Virginia		*				*
119 Tennessee		*				*
141 California						*
177 West Virginia	*	*				*
178 West Virginia	*	*				*
199 Minnesota		*		*		*
218 Ohio				*		*
237 Ohio						*
248 Virginia						*
269 Wyoming						*
278 Oklahoma		*				*
279 Massachusetts			*			
301 Vermont		*	*			
330 Nevada						*

## SUMMARY

An analysis of the priority area of Adult Vocational Education indicates a wide variety of projects in terms of scope and educational significance.

Most of the projects are comprehensively oriented in terms of their relationship to user populations. Several projects focus primarily on the special needs of women, Native Americans, handicapped persons, prison inmates, the unemployed and the underemployed. Geographically, rural and non-metropolitan areas will receive more attention than their urban counterparts.

In terms of content, the funded efforts range from the development of a comprehensive state-wide adult vocational education program in Alabama, to the preparation of instructional materials for coal miners and water treatment technicians in West Virginia. Several projects will direct their attention to the field of entrepreneurship, developing curricula, course materials, and individualized instruction modules.

Cooperative education programs with industry will be emphasized in two of the funded projects, one through an overall study of joint industry-education efforts and another which develops a cooperative training program with industry in the field of entrepreneurship.

Guidance, counseling, and placement for the adult population is emphasized in three projects. These projects indicate the need for a comprehensive approach in placing adults in the program most suited to their abilities. Also, these projects plan to develop a system of placement that will adhere to the demands of industry.

Competency-based approaches are emphasized in several projects. These programs will include individualized instruction modules for owner-managers and performance-based vocational teacher education delivery systems.

Several projects are focused on special populations. One project will develop and field test a multi-purpose computerized vocational program in counseling for handicapped persons, another will develop curriculum for upgrading mining electricians in the use of solid-state electrical controls, while the other two projects will develop career planning for women for employment purposes while emphasizing the placement of women in apprenticeship with unions of large industry.

Projects funded under Adult Vocational Education priority areas often overlap other fields which have important input into the training of adults. The educational significance of these projects includes not only the fact that the adult is being trained or upgraded, but also that the employers of small businesses and industry are being studied to determine methods by which the employees can progress and improve their skills.

There are a wide variety of methods and approaches offered in these proposals that will help education as a whole determine what the adult needs most to progress or enter the world of work. The end product developed from these awards will be available for educational institutions and business establishments in a number of forms as indicated in Table VI.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60004                      GRANT NUMBER: G007603973

PROJECT TITLE : Assessment of Adult Vocational Outreach Programs of  
Community Colleges in the Pacific Northwest

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. James L. Ratcliff, Assistant Professor  
Department of Education  
Washington State University  
Pullman, WA 99163  
(509) 335-5012

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : ~~Federal~~: \$122,000 Local: \$12,841 Total: \$134,841

### OBJECTIVES OR PURPOSES

The purpose of the project is to assess the current procedures of selected non-metropolitan community college districts in providing adult vocational out-reach programs to their outlying communities. The project will: (1) Survey the adult vocational learner interests and needs in selected rural communities of the target college districts; (2) Identify curricular, guidance, and administrative services available to residents, and (3) Identify procedural elements of adults vocational outreach programs that are particularly effective and/or innovative in meeting the interests and needs of the outlying communities.

### PROCEDURE OR APPROACH

A 60% stratified sample of all public two-year colleges with non-metro, non-campus populations will be drawn according to the size-density model. The sample of non-metro districts will range from urbanized to totally rural population. A sample of communities within each target districts will be drawn, representing 5% to 10% of the total non-campus population. The selected communities will be stratified according to population. In each selected community the project will: (1) construct a demographic portrait of the population, (2) conduct a needs assessment of adult vocational learner interests, (3) identify adult vocational programs and activities by all local and state agencies. The adult vocational programs of colleges and other agencies will be compared according to their effectiveness in meeting the needs of the communities.

### EXPECTED CONTRIBUTION TO EDUCATION

The results of this study should provide a basis for individual colleges serving basically rural populations to assess the effectiveness of their programs. Additionally, these colleges should, through the final report, have information regarding innovative programs for providing adult vocational education to rural and geographically isolated communities. The study should develop and produce an easily replicable model for assessing the needs of non-metropolitan populations within community college services areas.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60019                      GRANT NUMBER: G007603750

PROJECT TITLE : A Cooperative Vocational Education Investigation to  
Develop In-Service Training Programs for Operating  
Supervisory Personnel

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. R. Frank Harwood, Professor  
University of Mississippi  
School of Business Administration  
University, MS 38677  
(601) 232-7492

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$26,948 Local: \$12,000 Total: \$38,948

### OBJECTIVES OR PURPOSES

The principal objective of this investigation is to develop cooperatively an in-service training program for operating supervisory personnel. The thrust of this program will be aimed toward developing leadership capabilities. More effective leadership may help to raise productivity, a major cause in Mississippi ranking 50th in per capita income in 1975.

### PROCEDURE OR APPROACH

(1) A questionnaire will be developed to determine specific employer needs and prospective resources. (2) Associate field personnel from high schools, vocational-technical centers, and colleges or universities will be recruited and trained to use the questionnaire. (3) Employers with 25 or more employees at one site will be sought to participate in each of Mississippi's 82 counties. (4) Meaningful leads and specifics on existing non-funded and funded programs will be investigated. (5) Professional judgments and reactions will be solicited from institutional colleagues throughout the country.

### EXPECTED CONTRIBUTION TO EDUCATION

The investigative process and subsequent program involvement will foster a closer working relationship between business and educational institutions. The educational benefit can come from the added exposure that teachers have in being involved in meaningful economic problems. Such experiences can help cooperating teachers bring a new dimension into their classrooms.

## PROJECT ABSTRACT

PROJECT NUMBER : L98AH60027      GRANT NUMBER: G007603751

PROJECT TITLE : Individualized Employee Training For Small Rural Businesses

PROJECT DIRECTOR AND ORGANIZATION : Harry Hoch, Director - Continuing Education  
Treasure Valley Community College  
650 College Boulevard  
Ontario, Oregon 97914  
Phone: (503) 889-6493, Extension 56

GRANT PERIOD : July 1, 1976 - June 30, 1977

FUNDING LEVEL : Federal: \$18,281    Local: \$7,200    Total: \$25,481

### OBJECTIVES OR PURPOSES

1. Demonstrate to small businessmen the value of an individualized employee training program.
2. To demonstrate a technique by which an individualized employee training program can be developed and put into use in small businesses.
3. Assist the small business manager in implementing their management skills in training employees for:
  - a. conformity to various State and Federal Regulations
  - b. profitable management objectives
  - c. setting of management priorities

### PROCEDURE OR APPROACH

To demonstrate a technique of training small business employees utilizing the existing skills and knowledge of the small business operators in the area. The project features the pooling of local resources, using video tape cassette for delivery, local centers for storage, and individualized presentations (specific to each business) to stimulate learning on the part of the employee.

### EXPECTED CONTRIBUTION TO EDUCATION

1. Increased management efficiency in small businesses.
2. Increased cooperation between T.V.C.C. and small businesses.
3. Improved services to customers.
4. Increased earnings to small businesses.
5. Employees with better training and more enthusiasm for their jobs.
6. Improved cooperation with State and Federal Regulatory Agencies.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60032      GRANT NUMBER: G007603799  
PROJECT TITLE : Performance Based Adult Vocational Education  
PROJECT DIRECTOR AND ORGANIZATION : Dr. S. Douglas Patterson, Supervisor of Research and Evaluation  
Division of Vocational Education  
Alabama State Department of Education  
868 State Office Bldg.  
Montgomery, AL 36130  
(205) 832-3476  
GRANT PERIOD : July 1, 1976 to December 30, 1977  
FUNDING LEVEL : Federal: \$152,512 Local: \$56,150 Total: \$208,662

### PURPOSES AND OBJECTIVES

One purpose is to develop an adult vocational education competency based program using a research based instructional systems design. Another purpose is to assess the application of competency based research products being developed by the Vocational Technical Education Consortium of States (V-TECS) in the development of adult vocational education programs. Objectives include: (1) Design a model for implementing competency based adult vocational education; (2) Develop a plan for training adult vocational instructors in developing and using competency based instruction; (3) Train ten adult vocational instructors to criterion levels of performance in competency based instruction; (4) Implement competency based instruction in forty adult vocational classes; (5) Complete an evaluation study of the effects of using competency based instruction in adult vocational education.

### PROCEDURE OR APPROACH

Thirty adult vocational instructors will be randomly assigned to three groups of ten each. One group will receive catalogs of performance objectives and intensive in-service training in developing performance-based instruction. The second group of instructors will receive only the catalogs of performance objectives. The third group will develop conventional instruction programs. Each instructor will teach a series of two courses. All adult students in the courses will complete pre- and post- performance tests. Analysis will compare the performance of adult students in the three program situations.

### EXPECTED CONTRIBUTION TO EDUCATION

The results of the experiment will be research validated evidence as to the effectiveness of performance-based instructional materials being developed by V-TECS. The validated procedures for training adult vocational instructors to develop performance-based instruction will be used to train 1,800 adult vocational instructors who teach 86,000 adults per year. The model for implementing performance-based instruction has the potential of bringing performance-based instruction to 245,000 secondary and post-secondary vocational education students in Alabama.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60054 GRANT NUMBER: G007603752

PROJECT TITLE : Personnel Development for Entrepreneurs

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Ronald M. Hutkin  
Board of Regents  
University of Nebraska  
Research Coordinating Unit  
Lincoln, NE 68588  
(402) 564-7132

GRANT PERIOD : July 1, 1976 to October 30, 1977

FUNDING LEVEL : Federal: \$31,130 Local: \$12,092 Total: \$43,222

### OBJECTIVES OR PURPOSES

The purpose of this project is to design intensified, individualized and group oriented instructional programs in personnel development for the entrepreneur. The principal objectives are: (1) To design an instructional program and delivery system for assisting entrepreneurs and potential entrepreneurs in obtaining assessment, planning, and management skills; (2) To test the viability of the instructional program and delivery system by installation of courses for entrepreneurs at the Platte Campus serving both urban and rural populations; (3) To prepare materials and procedures documentation in a form that will be amendable for the operation of personnel development institutes in Nebraska Technical Community Colleges.

### PROCEDURE OR APPROACH

Phase I, the assessment phase, of the project will be concerned with establishing advisory committees (one urban and one rural) and assessing a selected population to determine the needs of small business managers for inclusion in course material. Phase II will be the development of instructional materials and training in service agencies to small businesses. Phase III will consist of a field test of course materials through classes conducted at the Platte Community College. Trained instructors will conduct the classes and supervise the participants on the job following completion of the course.

### EXPECTED CONTRIBUTION TO EDUCATION

The expected results of this project is to design and develop a means to identify potential entrepreneur participants in urban and rural settings and to have selected course materials applicable to the instruction of entrepreneurs. The availability of an instructional package for entrepreneurial programs assures that participants may be served through the present technical community colleges of Nebraska. This project will also field test a method of "inservicing" potential teachers of entrepreneurial programs through cooperative placement in the service agencies of small business.



## PROJECT ABSTRACT

PROJECT NUMBER : 49SAH60059 GRANT NUMBER: G007604116

PROJECT TITLE : Competency Based Adult Vocational Education Through Performance Based Vocational Teacher Education--"An Implementation Delivery System"

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Arthur O. Berry  
Bureau of Vocational Education  
State Department of Education  
University of Maine at Portland-Gorham  
College Avenue  
Gorham, ME 04038  
(207) 839-6771

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$19,779 Local: \$9,269 Total: \$29,048

### OBJECTIVES OR PURPOSES

The project is designed to develop within adult instructors the skills and techniques that will cause them to structure their courses and programs around competencies: (1) Identify two target groups of vocational adult instructors and develop professional teaching competencies; (2) Identify occupational competencies and develop materials for use in their vocational classes; (3) Field test vocational adult materials and evaluate professional teaching competencies.

### PROCEDURE OR APPROACH

Two groups of ten vocational adult instructors representing two occupational areas from the Northern Maine Vocational Planning District will be selected to complete the competency based professional education sequence offered through the University of Maine at Portland-Gorham. During completion of the professional sequence materials and a structure for offering vocational adult courses based on occupational competencies will be developed. Upon completion of the professional sequence, a six months test period will be conducted during which time instructors will initiate vocational adult courses based on occupational competencies and be evaluated on their teaching competency.

### EXPECTED CONTRIBUTION TO EDUCATION

The project is designed to develop instructor competencies in two target groups of adult instructors. They, in turn, are to produce competency based instructional materials for their adult courses. These will consist of: task analyses, units of instruction and unit competency tests for use in adult programs within the state of Maine. Targeted groups are from northern Maine, an economically depressed rural area with large numbers of under-employed and unemployed adults. Once established, the model will be utilized in other occupational areas under the direction of the Maine State Department of Education and through the staff development efforts of the University of Maine at Portland-Gorham.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60090 GRANT NUMBER: G007603753

PROJECT TITLE : A Model for Vocational Education Program Development in Entrepreneurship

PROJECT DIRECTOR AND ORGANIZATION : Dr. Jack D. Nichols  
Arkansas Department of Education  
Division of Vocational, Technical and Adult Education  
State Education Building  
Little Rock, Arkansas 72201  
(501) 371-1855

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$81,000 Local: \$5,000 Total: \$86,000

### OBJECTIVES OR PURPOSES

The overall purpose of this project is to expand the vocational education curriculum to provide adults with entrepreneurial competencies which will facilitate self-employment. More specifically, the project goals are to: (1) Develop and implement modules of instruction in entrepreneurship for adults in self-employment and potential entrepreneurs; (2) Develop a staff development program for adult educators; (3) Develop and implement a communication system which will provide more visibility to occupational training for adults; (4) Coordinate realistic training experiences in entrepreneurship. Objectives are stated in performance terms in the narrative of the project.

### PROCEDURES OR APPROACH

Some twelve modules will be identified which will adequately cover the entire spectrum of small business ownership. Content specialist will develop technical content materials for the selected entrepreneurial modules. A selection of on-site teams will pilot test the materials. Staff development activities will include three seminars and a two week workshop. The project will culminate with self-contained instructional modules in the identified areas of entrepreneurship and media for maximizing vocational technical education for adults.

### EXPECTED CONTRIBUTION TO EDUCATION

The expected benefits to be derived are: (1) a curriculum stressing successful techniques in entrepreneurship which is relevant and exhibits considerable transportability, (2) a cadre of adult educators to teach ownership and management competencies and (3) individuals with improved competencies in starting and managing a business enterprise. It is anticipated that the materials will be used by the 23 postsecondary vocational technical schools and many of the 321 school districts offering vocational education.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60108                      GRANT NUMBER: G007603754

PROJECT TITLE : Developing Competency-Based Individualized Instruction  
Modules for Owner-Managers of Small Business Firms

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Barry L. Reece  
Virginia Polytechnic Institute and State University  
Division of Vocational and Technical Education  
Blacksburg, VA 24061  
(703) 951-5191

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$77,000 Local: \$45,747 Total: \$122,747

### OBJECTIVES OR PURPOSES

The purpose of this project ~~is to develop~~, administer, and ~~evaluate~~ a series of individualized instructional modules designed to ~~develop managerial-entrepreneurial~~ competencies. The ~~modules~~ will be delivered to ~~business owner-managers~~ on a one-to-one basis as soon as they begin to operate their businesses. Specific objectives follow: (1) Identify core-crucial managerial-entrepreneurial competencies which are needed by owner-managers of small business firms; (2) Prepare a series of individualized instructional modules based on these competencies; (3) Recruit and train teacher-counselors to assist owner-managers of small businesses with completion of the instructional modules; (4) Recruit and enroll a minimum of 25 owner-managers of newly-formed business firms in a program of study which features an individualized instructional format; (5) Conduct an evaluation to assess the degree to which the instructional modules aided owner-managers.

### PROCEDURE OR APPROACH

A review of the literature devoted to causes of small business failure should yield a list of core-crucial competencies necessary for successful management of a small marketing firm. Once this list is validated, a series of individualized instructional modules designed to develop these core-crucial competencies will be developed. The project staff will then recruit and train teacher counselors who, in most cases, will be distributive education teacher-coordinators to assist a minimum of 25 owner-managers of newly-formed small businesses with completion of the instructional modules.

### EXPECTED CONTRIBUTION TO EDUCATION

Each year approximately 400,000 persons form new business enterprises; of which 90 percent fail. Educators throughout the nation will be able to use these modules to assist owner-managers at the most crucial time--opening through the first six months of the life of the business. Each module will feature a competency-based and individualized instructional format; therefore, the total package can easily be adapted to meet the training needs of local small business owner-managers in any state.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60119 GRANT NUMBER: G007603755

PROJECT TITLE : Development and Field Test of a Multi-purpose Computerized Vocational Counseling Program for Providing Placement, Occupational and Educational Information to Unemployed Adults, Handicapped Persons and Inmates in Correctional Institutions

PROJECT DIRECTOR AND ORGANIZATION : Dr. Walter A. Cameron  
The University of Tennessee  
Knoxville, TN 37916  
(615) 974-4466

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$170,000 Local: \$47,005.76 Total: \$217,005.76

### OBJECTIVES OR PURPOSES

The following specific objectives will be carried out to provide vocational services to unemployed and underemployed adults, handicapped persons and inmates in correctional institutions in Tennessee: (1) Assess vocational counseling needs of clientele; (2) Develop a multi-purpose occupational information computer program for providing on-line access to placement, occupational and educational opportunity data; (3) Develop user guides and sound-filmstrips for using occupational information and for developing basic employability skills; (4) Field test the computer package on four types of computers and assess user reactions to all facets of the vocational counseling services.

### PROCEDURE OR APPROACH

The major thrust of this project will be to determine the vocational counseling needs of the clientele to be served by survey and interview; then to develop a multi-purpose computerized information program to meet these needs. The developed computerized program will be installed on four different types of computer systems in Tennessee. In addition, user guides and a series of sound-filmstrips will be developed and evaluated. Inservice training will be provided to all user groups. Evaluation data on the impact of the services will be collected and results will be compared with control groups of adults, handicapped persons and prison inmates who have not used the materials developed for this project.

### EXPECTED CONTRIBUTION TO EDUCATION

This project is expected to provide vocational counseling services to approximately 1,000 unemployed and underemployed adults, 2,000 handicapped persons and 1,000 prison inmates in Tennessee. The master occupational information computer package developed for this project will be designed so it can be easily localized and updated for use on computers with basic time-share capabilities. In addition, evaluated user guides and sound-filmstrips to assist adults, handicapped persons and prison inmates in making vocational training and job choices will result from this project.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60141 GRANT NUMBER: G007603800

PROJECT TITLE : Adult Education for Women's Entrepreneurship:  
Women's Ownership Workshop

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Melvin Lewis Barlow  
University of California at Los Angeles  
Graduate School of Education  
133 Moore Hall  
405 Hilgard Ave.  
Los Angeles, CA 90024  
(213) 825-1838

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$71,679 Local: \$21,000 Total: \$92,679

### OBJECTIVES OR PURPOSES

A career education module will be prepared detailing how the learning activities are to be used within the Andragogy instructional framework: (1) Development of Competency-based Learning Activity Packages and Instructor's Handbook on the use of these packages; (2) Review and evaluation of the packages; (3) Staff development and inservice training for adult educators and resource persons; (4) Workshop and clinic sessions for participants; (5) Preparation and distribution of the Final Report.

### PROCEDURE OR APPROACH

An advisory committee and third party evaluation will be used to make recommendations and evaluations of the packages. Workshop sites will be selected where LEA's have made a commitment to provide resources for actual recruitment of participation making available facilities and equipment and certifying the availability of community resources. Staff development will cover learning activity packages, Andragogy, and program management, career development, cooperative work experience, business plan and focus on understanding and implementing McClelland's Achievement Motivation Model. There will be a series of regional workshops which will correspond to the teaching-learning strategies.

### EXPECTED CONTRIBUTION TO EDUCATION

The form of vocational preparation proposed in this project is competency-based and self-paced for adult clients, this concurrently providing a vehicle for greater involvement by vocational educators in adult education. In addition, through staff development, the instructors will adopt a comprehensive design for adult education and develop more appropriate skills for teaching adults.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60177 GRANT NUMBER: G007603756

PROJECT TITLE : Development of a Curriculum for Upgrading Mine Electricians in the Use of Solid-State Electrical Controls

PROJECT DIRECTOR AND ORGANIZATION : Mr. William Dillon  
West Virginia Department of Education  
1900 Washington St.  
Charleston, WV 25305  
(304) 369-1628

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$48,357 Local: \$46,193 Total: \$94,550

### OBJECTIVES OR PURPOSES

The proposed research and allied activity will develop an instructional program for training underground mine electricians to trouble-shoot and do corrective maintenance on solid-state electrical controls. This program will combine a competency-based format and short modules of instruction to provide an open-entry open-exit scheduling. It will be used for updating 7,000 certified and 5,000 non-certified men presently employed in the mining industry. Research objectives are: (1) To promote a cooperative, educational effort between vocational education and industry; (2) To define competencies needed by coal mine electricians to work effectively with solid-state electrical controls on mining equipment; (3) To develop a competency-based curriculum which makes use of short, self-paced modules of instruction, is transportable makes use of audio-visual aids, and provides for open-entry open-exit scheduling; (4) To provide electrical panels for demonstrational and training purposes.

### PROCEDURE OR APPROACH

This project will be a cooperative effort between manufacturers of mine equipment, coal mine operators, and Vocational Education in West Virginia. To facilitate and insure this cooperation, an advisory committee of 5 members from industry and education, in conjunction with the project directors, will coordinate the efforts of teams of consultants, mine electricians/teachers, curriculum writers, and teaching aid developers. As the units of instruction are completed, they will be pilot tested and proper revision will be made. The coordinators of curriculum and media development, Department of Vocational Education will be available to advise and assist with the writing and evaluation.

### EXPECTED CONTRIBUTION TO EDUCATION

This project will further strengthen the ties between vocational education and industry by providing industry with a useful tool to update their personnel and set the stage for further cooperative efforts of this kind. Education will gain a useful teaching tool that is sorely needed throughout the country and a cadre of trained instructors to implement it. This program will be sent to the ERIC System and to each regional curriculum laboratory.



## PROJECT ABSTRACT

PROJECT NUMBER : L98AH60178

GRANT NUMBER: G6007603801

PROJECT TITLE : Development of A Competency - Based Curriculum for Upgrading Water Treatment Technicians.

PROJECT DIRECTOR

AND ORGANIZATION: T. A. Welty, Coordinator of Public Service Training  
West Virginia Department of Education  
1900 Washington Street, East  
Charleston, WV 25305 304 348-3896

GRANT PERIOD : July 1, 1976 ~ June 30, 1977

FUNDING LEVEL : Federal: \$25,858 Local: \$6,015 Total: \$31,873

### OBJECTIVES OR PURPOSES

The proposed research and demonstration activity is to develop an instructional program for training water treatment technicians. It will combine a competency-based format, short modules of instruction and provision for open-entry and open-exit. It ~~could~~ be used in both a post-secondary situation for new trainees and in an adult education setting for either new trainees or for upgrading presently employed water treatment technicians. The objectives of the proposed project are: (1) To demonstrate the feasibility and advantages of cooperative educational efforts among the employing industry, the regulatory agency, and vocational education. (2) To determine the competencies needed by water treatment technicians to meet certification standards and work effectively and efficiently in a water treatment facility. (3) To develop a curriculum (instructional program) which: (a) is based on the determined competencies (b) makes use of short modules and self-paced modes of instruction. (c) is open-entry open-exit and provides developmental (remedial) instruction for those students with minor deficiencies for entering the curriculum.

### PROCEDURE OR APPROACH

The project will be a cooperative effort between Vocational Education, the State Health Department and the water treatment industry. To facilitate and insure this cooperation a team of 3 project co-directors and a team of 3 consultants will be used under the direction of the project director. The other co-directors will be from the West Virginia Department of Health. A team of consultants from the industry will work with a full-time project coordinator writing curriculum and report preparation. As the units of instruction are completed they will be pilot tested. The coordinators of curriculum and media development, Department of Vocational Education will be available to assist with the writing and evaluation.

### EXPECTED CONTRIBUTION TO EDUCATION

The project should result in benefits to the citizens of West Virginia, vocational education and the water treatment industry. Two major beneficial results seem likely: (1) Strengthened cooperation between vocational education, other state agencies and industry in providing educational programs. (2) The development of an instructional program for training or upgrading water treatment technicians which can be used effectively in West Virginia and other states.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60199 GRANT NUMBER: G007605299

PROJECT TITLE : Entrepreneurship Education for Adults-Program Development and Implementation

PROJECT DIRECTOR AND ORGANIZATION : Dr. Edgar A. Persons  
University of Minnesota  
College of Education  
Minneapolis, MN 55101  
(612) 373-1020

GRANT PERIOD : September 30, 1976 to March 31, 1978

FUNDING LEVEL : Federal: \$133,000 Local: \$26,744 Total: \$159,744

### OBJECTIVES OR PURPOSES

The general objective of this proposal is to expand the development, dissemination and utilization aspects of entrepreneurial inquiry. The specific objectives are: (1) To prepare instructional modules for post-secondary and adult students who are contemplating a career as an entrepreneur. (2) To refine and disseminate and assist in utilization of instructional materials for individuals already engaged as entrepreneurs. (3) To create model legislation and state plan language for entrepreneurial training for post-secondary and adult students.

### PROCEDURE OR APPROACH

Instructional modules will be developed using the same curriculum team that developed the adult entrepreneurial training program. Modules (12-15) of instruction that can be integrated into existing vocational training programs or used for adult instruction will result. Dissemination utilization will result from the mass effort to inform, through a series of articulated conferences, those people in state departments of education (45), colleges (55) and local educational agencies (20), how programs for entrepreneurial training are developed, implemented and managed. Based on a sampling of state plans for vocational education and state education laws, a model for legislation and state plan provisions will be developed to enable states to provide support for entrepreneurial training.

### EXPECTED CONTRIBUTION TO EDUCATION

The attention given to training for the self-employed and job creation by vocational education has been weak. This proposal intends to carry to the utilization stage several aspects of entrepreneurial training that have been developed by public money. It is an attempt to broaden the focus of vocational education to incorporate the self-employed entrepreneur as well as employees in the training for careers. Dissemination activities will alert the state departments of education and teacher training departments in all states in the U.S.A. of the potential benefits for establishing SBM training programs. Other project activities will work to eliminate or neutralize the restraints commonly encountered in establishing a new curriculum effort.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60218

GRANT NUMBER: G007604056

PROJECT TITLE : Career Planning Programs for Women Employees

PROJECT DIRECTOR : Dr. Louise Vetter  
AND ORGANIZATION: The Center for Vocational Education  
The Ohio State University  
1960 Kenny Road  
Columbus, Ohio 43210 (614) 486-3655

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$163,529.00 Local: \$1,959.00 Total: \$165,488.00

### OBJECTIVES OR PURPOSES:

1. To determine the current status of career planning programs for women employees.
2. To develop a prototype career planning program for women employees that will be adaptable to both educational and employment settings.

### PROCEDURE OR APPROACH

Parameters for career planning programs for women employees will be defined and criteria for reviewing programs established. The literature will be reviewed. Survey instruments will be developed and data collected from large city adult vocational programs, technical institutes, community and junior colleges, and business and industry. Using the data from the surveys, a prototype career planning program for women employees will be developed, using a modified Delphi technique. Products listed below will be prepared.

### EXPECTED CONTRIBUTION TO EDUCATION

There will be five products from this project: 1) review of literature; 2) survey report; 3) annotated bibliography; 4) prototype career planning program; and 5) final report. These products will meet a chronic need of vocational educators and counseling and career planning personnel in adult, community, and junior college programs for tangible assistance in planning and developing career planning programs for women employees who are potential students for such educational institutions. The products will sensitize personnel program directors in business and industry to the need and opportunity for planning and developing programs for their women employees who are interested in upgrading their occupational status, and will provide a model for taking immediate action. Perhaps the most promising payoff will result where educators and business and industry personnel use these material for planning and developing joint programs to meet the career planning needs of women employees.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60237

GRANT NUMBER: G007605788

PROJECT TITLE: Identification and Analysis of Competency-Based Adult Vocational Education Programs

PROJECT DIRECTOR Dr. Earl B. Russell, Specialist  
AND ORGANIZATION: The Center for Vocational Education - Ohio State University  
1960 Kenny Road  
Columbus, Ohio 43210  
(614) 486-3655

GRANT PERIOD: September 30, 1976 through September 30, 1977

FUNDING LEVEL: Federal: \$87,000 Local: \$1,200 Total: \$88,200

### OBJECTIVES OR PURPOSES

Relatively little is known about the status of competency-based adult vocational education programs in the United States. This study will be conducted to: 1) Identify and describe characteristics of specific competency-based adult vocational education programs in public and private vocational education; 2) Provide a vehicle for adult vocational program developers and operators to "share and exchange," "train and be trained" in the competency-based education concept; and 3) Provide the profession with information and supporting data on the status of competency-based education in adult vocational education programs sponsored by business, industry, and education so that developers and operators will have a readily available source of assistance.

### PROCEDURE OR APPROACH

Working with a panel of consultants, project staff will develop a set of criteria for selecting competency-based adult vocational programs for study. Concurrently, a list of involved agencies in such programs will be compiled from the literature and individual referrals. Candidate programs will be verified by a preliminary survey of agency administrators. Subsequently, a full-fledged mail survey of competency-based programs for adults will be conducted among approximately 100-150 persons who develop or operate these programs. Approximately 10 of the most outstanding programs will be selected for on-site review. Based upon a standard set of program characteristics, descriptive analyses of surveyed programs will be presented in a technical report and in a program directory. To disseminate this information, a workshop will be conducted for adult vocational program developers.

### EXPECTED CONTRIBUTION TO EDUCATION

Products to result from the project include a directory of competency-based adult vocational education programs, a technical report of program characteristics, workshop proceedings, and a final report. Expected outcomes from these products include: 1) Improved access to competency-based programs by program developers and subsequently adult learners; 2) Improved information regarding the status, progress, and methods in competency-based adult vocational education; and 3) Specific plans of action for program improvement by workshop participants.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60248 CONTRACT NUMBER: 300760260

PROJECT TITLE : Analysis of the Relationship of Vocational Education to Women's Entry and Retention into Apprenticeship Programs

PROJECT DIRECTOR AND ORGANIZATION : Ms. Roslyn D. Kane  
RJ Associates  
1018 Wilson Blvd.  
Arlington, VA 22209  
(703) 524-3360

CONTRACT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$62,000 Local: \$4,718 Total: \$66,718

### OBJECTIVES OR PURPOSES

The study will explore the characteristics of women who apply for apprenticeship, the preparation they received and the cause of their acceptance to, or rejection from apprenticeship programs. RJ will seek to determine:

- ...Prior training women found most (least) useful in preparing for written and oral admissions exams for entry into apprenticeship program;
- ...Women's perceptions of existing special programs;
- ...What special support programs are needed to overcome the problems that have caused a large percentage to drop out.

On the basis of these findings, the study will seek to define:

- ...The role of vocational education at the high school, adult, and postsecondary level to assist women to enter and remain in apprenticeship programs;
- ...Specific steps to improve vocational education's role and increase the number of women successfully applying for apprenticeship;
- ...Steps to increase coordination of vocational education with special CETA-funded programs for women.

### PROCEDURE OR APPROACH

Taped interviews of unsuccessful women applicants, women apprentices, Joint Apprenticeship Councils of ten unions, and educators will be analyzed to determine the socio-demographic characteristics of the women, type of training, course content, etc., prior to taking the apprenticeship examination. Variables will be tested to determine socio-demographic factors as well as the type and extent of training. Interviews will be subject to content analysis to determine the barriers to admission and retention in apprenticeship as perceived by each group and the effectiveness of the particular programs.

### EXPECTED CONTRIBUTION TO EDUCATION

The end product will be action recommendations as to the role vocational education can play at all levels. Material will be prepared to advise women still in high school and those returning to the work force on the most advisable paths to a successful career in apprenticeable trades. Material will be prepared for BOAE to be used to inform vocational educators and counselors.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60269      GRANT NUMBER: G007603802

PROJECT TITLE : Development of Guidance and Counseling Program in Vocational Education for Employed Adults, Wind River Reservation

PROJECT DIRECTOR AND ORGANIZATION : Mr. John Smith  
Arapahoe Education Committee  
Arapahoe Business Council  
P.O. Box 217  
Fort Washakie, WY 82514  
(307) 332-4462

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$13,498 Local: \$2,400 Total: \$15,898

### OBJECTIVES OR PURPOSES

The objectives of the project are: (1) identify the vocational education needs of employed adults on the Wind River Reservation; (2) determine the extent to which agencies, organizations, or individuals are providing vocational education services for employed adults; (3) develop a guidance and counseling program which will relate the provision of vocational education services to career progression plans of employed adults; and (4) develop coordinated activities between vocational education services and public employment training programs funded under the Comprehensive Employment Training Act.

### PROCEDURE OR APPROACH

The identification of vocational education needs of the employed adult population will be accomplished primarily through personal interviews with present employers and employees. Employers will provide information concerning skill requirements for vacant and non-vacant jobs. Agencies currently providing vocational education services will be contacted directly to determine type and extent of services provided. People served by these agencies will also be contacted to determine views relative to adequacy of assistance. An inventory of services will be compiled, printed and distributed to reservation residents. Related efforts in other areas of high unemployment will be reviewed as part of the development of the guidance program. Based upon this information and the results of the survey, possible methods of providing career counseling to current and prospective employees will be identified.

### EXPECTED CONTRIBUTION TO EDUCATION

Direct results will include the identification of vocational education needs of employed adults and development of program to coordinate services which will meet the identified needs. The identification of the needs of employed adults on the Wind River Reservation will be summarized in a written report, as will extent to which the needs are being met. The efforts involved in the development of the guidance program will be documented in a second report. The results should be of interest to those dealing with Indian reservations and high unemployment areas.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60278 GRANT NUMBER: G007603757

PROJECT TITLE : Instructional Materials for Adult Entrepreneurship of Apparel Shops

PROJECT DIRECTOR AND ORGANIZATION : Dr. Kathryn Greenwood  
Oklahoma State University  
Division of Home Economics  
Stillwater, OK 74074  
(405) 624-5035

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$42,000 Local: \$2,142 Total: \$44,142

### OBJECTIVES OR PURPOSES

To aid adults to develop competencies needed for self-employment in successful small businesses, the objectives are: 1) To develop individualized and modularized instructional materials which aim to provide entrepreneurial competencies for potential small apparel shop owners. 2) To test the instructional materials through use in a pilot open entry-exit setting with role model merchants as consultants. 3) To evaluate the instructional materials during the pilot-study period with assistance from a panel of business experts. 4) To revise the instructional materials and to make recommendations concerning the continued use in open entry-exit programs to provide adult entrepreneurial competencies which facilitate self-employment.

### PROCEDURE OR APPROACH

Individualized and modularized instructional materials will be designed and utilized in an open entry-exit program in order to guide adults through a step by step process in the development of plans to establish a small apparel shop. This planning process will be organized to incorporate entrepreneurial competencies within the four functions in retail store organization: 1) accounting and control; 2) buying and merchandising; 3) operation and management; and, 4) advertising and promotion. Successful apparel merchants and other business experts will be involved in the development of the instructional materials, in the implementation of the pilot open entry exit program, in the evaluation of the results of the research project, and in the revision of instructional materials.

### EXPECTED CONTRIBUTION TO EDUCATION

1) Instructional materials will be made available for use in adult open entry-exit programs by distributive education and home economics teacher-coordinators throughout the country. Over 100,000 adults were in training in merchandising and clothing management during 1973. (US Dep. of Educ., Summary Data, Vocational Education Information #1.) 2) Individualized and modularized learning materials will facilitate more effective instruction and will allow more flexibility in the use of time by the teacher-coordinator. 3) More flexible learning situations will be created for adult trainees through the use of the individualized, self-paced, self-evaluative instructional materials in an open entry-exit setting. 4) The instructional system will serve as an example for other educational efforts in the development of entrepreneurial competencies necessary for success in establishing many types of specialty shops.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60279

GRANT NUMBER: G007605051

PROJECT TITLE: Characteristics and Cases of Joint Industry-Education Programs Assisting Employee-Selected Career Changes

PROJECT DIRECTOR Dr. L. Allen Parker, CTS Executive Director  
AND ORGANIZATION: Technical Education Research Centers, Inc. ---Northeast  
44 Brattle Street  
Cambridge, Massachusetts 02138  
Telephone: 617-547-0430

GRANT PERIOD: September 13, 1976 - March 31, 1978

FUNDING LEVEL: Federal: \$110,000 Local: \$5,500 Total: \$115,500

### OBJECTIVES OR PURPOSES

Many employees become dissatisfied with their careers and could benefit from joint industry-education programs assisting them to prepare for and make self-selected career changes. The objectives of this project are:

- 1) To indentify successful and less successful career-change programs;
- 2) To compare twenty cases of successful and less successful joint programs in order to ascertain the factors associated with success; and
- 3) To publicize the findings in an illustrated publication and a compendium of case studies encouraging employers, educators, labor representatives, and government officials to establish new joint programs.

### PROCEDURES OR APPROACH

- To achieve the objectives, the more important tasks of the project are to:
- Survey the top personnel executives in the Fortune 800 largest U.S. manufacturing and service firms regarding their career change programs;
  - Survey top administrators in 2000 postsecondary educational institutions;
  - Prepare a literature synthesis on career change experiences;
  - Select twenty more and less successful joint career-change programs;
  - Prepare a summary comparison and a compendium of case studies;
  - Prepare and print a publication in illustrated magazine format; and
  - Disseminate publication and compendium copies and obtain feedback.

### EXPECTED CONTRIBUTION TO EDUCATION

The disseminated products of this project will be 500 copies of a compendium of case studies and 6000 copies of an illustrated publication. The publication will increase educator, employer, labor representative, and government official awareness of the need for employee-selected career-change programs and means to establish them. New joint programs will likely be initiated as a result. The increased availability of joint programs in turn will allow more adults to prepare for mid-career changes intended to increase their productivity and make their lives more satisfying.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60301 GRANT NUMBER: G007603803  
PROJECT TITLE : Developing Adult Guidance-Placement Models in Vermont  
ACTING PROJECT : Arthur W. Ericson, Vocational Director  
DIRECTOR & ORGANIZATION: Vermont State Department of Education  
State Street  
Montpelier, Vermont 05602 Area Code: 802-828-3101  
GRANT PERIOD : July 1, 1976-June 30, 1977  
FUNDING LEVEL : Federal: \$19,359 Local: 4,100 Total: 23,459

### OBJECTIVES OR PURPOSES

Vermont's fifteen area vocational centers could be better utilized if guidelines, procedures and adult counseling existed to assist adults in establishing a career direction and methods for achieving it. This project will:

1. Establish an advisory committee to assist the project director.
2. Complete a review of the literature on adult guidance models.
3. Develop sufficient procedures and documents for two adult guidance models.
4. Implement on a pilot basis at least one guidance model with a minimum of 30 adults in an area vocational center and its sending schools.
5. Complete a documentation of the processes, procedures, development and implementation of the adult guidance models.
6. Complete an evaluation of the implementation of the model using the criteria of cost-effectiveness and results.

### PROCEDURE OR APPROACH

A full-time project director will have the major responsibility for researching, development and implementating the model. The advisory committee will provide input to the model components and modifications and will experience the training materials before use in the field. Thirty adults to participate in the field testing will come from the area served by the vocational center.

Based on the field testing the model will be documented. Training packages and a workshop will be available to adult vocational education. A third party evaluator will report on the results and cost effectiveness.

### EXPECTED CONTRIBUTION TO EDUCATION

An annotated bibliography of adult guidance procedures, processes and results will be completed. A procedures manual will be available to fifteen area vocational directors, twelve guidance coordinators, six adult vocational education supervisors, and the project advisory committee. A training workshop for fifteen adult vocational education supervisors and area vocational center directors will be conducted.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60330

GRANT NUMBER: G007603758

PROJECT TITLE : Expanding Competency-Based Adult Vocational Education  
in Nevada

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Ray D. Ryan, Jr.  
University of Nevada  
Department of Secondary Education  
4505 Maryland Parkway  
Las Vegas, NV 89134  
(702) 739-3635

GRANT PERIOD : July 1, 1976 to December 30, 1977

FUNDING LEVEL : Federal: \$16,064 Local: \$2,000 Total: \$18,064

### OBJECTIVES OR PURPOSES

The goals of this project are: (1) To initiate and/or expand competency-based adult vocational education in Nevada; (2) To develop an individualized program of instruction with a technology based delivery system that will be used for presenting the CBAVE information; (3) To evaluate this project and report the results of the evaluation to the SDOE and HEW.

### PROCEDURE OR APPROACH

The project has five main courses of action: (1) Collect and review existing materials; (2) Modification and design of materials for the workshop; (3) Implementation of workshops; (4) Evaluation and reporting of workshops; (5) Follow-up of project participants.

### EXPECTED CONTRIBUTION TO EDUCATION

It is anticipated that as a result of this project: (1) There will be designed and made available a quantity of audio visual materials suitable for use in an individualized manner; (2) The reports and articles published about this study will be made available to thousands of readers; (3) That initially 4000 students in Nevada's Adult Vocational Education Programs will benefit from improved instruction.



## POSTSECONDARY VOCATIONAL EDUCATION

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## Background

The great expansion of vocational education at the postsecondary level over the past decade has encountered a myriad of needs for better knowledge and more effective means of identifying relevant needs of both individuals and society, and implementing responsive policies and plans. The issues and problems, and the needed research, applied studies, and development projects are of national, regional, State, and local significance. Federal legislation, including federal vocational education legislation, and recent legislative activities of many States, evidence the public recognition of both the operational and the research and development needs of postsecondary vocational education as a vital area for priority attention.

## Priority Concern and Project Responsiveness

As a result of the kinds of needs outlined above, the U.S. Commissioner of Education concluded that postsecondary vocational education would be a priority area in the Vocational Education Research Program for FY 1976. The more specific areas selected for emphasis within this general priority concern were announced in the Federal Register as follows:

1. Modularization or individualization of vocational education programs in new and emerging areas such as energy and environment where labor shortages exist for technically trained persons;
2. Develop and evaluate programs that serve the needs of students in inner city and/or rural areas;
3. Identify and evaluate exemplary programs that reduce the dropout rate from vocational education at the postsecondary level;
4. Develop and/or evaluate cooperative agreements between public, private, proprietary postsecondary institutions and business, industry, and labor; and
5. Develop and field test criteria, instruments, and procedures to assess productivity and impact of postsecondary vocational education programs.

Table I presents an analysis of the thirty-six funded projects in terms of the relation of each project's major thrust to one of the five specific items set forth in the over-all statement. It also

indicates the national, State, or local significance of each project. It must be recognized that the single columnar entry for each project represents the chief response to the specific priority items. Most projects also relate to some degree to one or more specific priority items. Some relate to one degree or another to one or more of the other priority areas announced in the Federal Register. It is apparent that a relatively high number of funded projects are addressed to postsecondary vocational education and that they are substantially responsive to particular emphasis included in the announced priority area.

#### Special Populations Addressed

In Table 2, each project is arrayed against special population categories. These categories obviously are not mutually exclusive. The table helps to locate the group being served by the project in terms of whether they are in urban or rural settings or both. The named group category with the highest frequency is "handicapped." In terms of location, the combination of urban and rural is by far the most common. The frequency of urban alone and rural alone is about the same.

### General Purposes, Content

Table 3 displays the projects in terms of their main substantive concerns. Specific substantive categories employed in the table are grouped under three general headings, namely Occupational Training, Program Assessment, and Other. There are 16 entries in the first of these general headings, 13 in the second, and 14 in the third - exhibiting equal attention to various program assessment problems and a range of other substantive concerns, in comparison with attention to occupational training as a substantive focus. Within the occupational training area, it can be seen that a fairly wide range of occupational content is represented.

### End Products, Users

In Table 4, five categories of end products are each subdivided in relation to expected users of those end products. The end products of Instructional Materials, Evaluation of Programs, Guidance and Counseling Models or Systems, Information, and Other are shown to be intended for use by a variety of institutions and agency as entered, by project, in the body of the table. The deliverable end products will help to serve the needs of a variety of institutions.

### Agency Linkages

Over half of the projects involve linking the resources of education with those of other institutions or agencies in the planning and conduct of the project and/or some kind of use of project outcomes. This is evidenced by Table 5. Thus, as a group, the funded projects promise significant contributions to the widely recognized needs for "bridging the gap" between education and work, and between education and other community interests.

### Evaluation Components

All but a few of the projects have provided explicitly for some form of evaluation of project processes or products, either by their own staffs or outside authorities. Table 6 shows that there will be somewhat more "self" evaluation methods employed than "outside" evaluation.

### Dissemination Components

Dissemination activities are being strongly emphasized by this group of projects, as recorded in Table 7. Entries made in the table show the kinds of product or information which will be disseminated by each project to various types of "receivers."

### Summary

In summary, the significance of the projects characterized in the foregoing tables and brief discussions can be regarded from two broad points of view: (1) their relation to broad societal and community needs to which many kinds of institutions and programs besides postsecondary vocational education must attend, and (2) their projected contributions to postsecondary vocational education per se.

From the first point of view, many of these projects relate to such broad societal problems as, energy, environmental conditions, health education and health care, and business enterprise. Many, in a very direct sense, relate to improving the transition of people from "school" to work and from work to "school." All relate to the issues and problems of "sexism" in the society and its institutions; and a significant number of them are addressed to overcoming sex bias and occupational sex stereotyping as their direct purpose. Similarly, all projects explicitly or implicitly include concern for -- and a great many make substantial specific provision for -- meeting the particular needs, characteristics, and life circumstances of specially identified and "targeted" sub-groups of the population.

Projected contributions of the projects to postsecondary vocational education include such vital elements as (1) policy development and assessment, (2) planning and management, (3) program evaluation, (4) staff development, (5) curriculum development, instruction, (6) cooperative vocational education and work experience (7) guidance, counseling, and placement, (8) linking postsecondary vocational education and guidance, counseling, and placement with business, industry, and labor, (9) widening accessibility of people to postsecondary vocational education - public and proprietary, and (10) facilitating installation elsewhere of innovations in postsecondary vocational education.

TABLE I ' RESPONSIVENESS TO ANNOUNCED POSTSECONDARY PRIORITY

Modularization Individualization	Evaluate Programs for Inner City, Rural	Reduce Dropout Rate	Cooperative Agreements	Assess Program Impact	Other	Significance*
X				X		N
				X		S
						S
X						L
X						S
X						S
				X		L
X						S
				X		S
					counseling & placement	S
					counseling	S
				X	mgt. info. system	S
X						S
					comparison public & residential proprietary offerings	S
					womens special special needs	S
					computer- assisted guidance	N
X						S
			X			S
				X		L
					cooperative rural guid- ance system	N
					cooperative rural guid- ance system	N

Project No.	Evaluate Programs				Assess Program Impact	Other Significance*
	Modularization	for	Reduce	Cooperative		
	Individualization	Inner City, Rural	Dropout Rate	Agreements		
205					X	N
219	X					
223						entrepreneurship N
						womens training for non-traditional occupations N
239				X		L
246	X					S
252	X					L
261						adult coop. voc. ed. staff develop S
264						voc. ed. for special needs person leaving State institutions S
282						career decision making N

TABLE I (Continued)

Project No.	Evaluate Programs		Reduce Dropout Rate	Cooperative Agreements	Assess Program		Other	Significance*
	Modularization Individualization	for Inner City, Rural			Impact			
284				X				L
292				X				N
316								
							vac. ed. for dis. and phys. handicapped	L
318			X					S

\*primary focus of project's thrust and involvements in terms of national, State, or local needs and activities.



TABLE 2. SPECIAL POPULATIONS\*

PROJECT NUMBER	NATIVE AMERICANS			MEXICAN AMERICANS			UNEMPLOYED			WOMEN			DIS- ADVANTAGED			HANDICAPPED			DROPOUTS			NONE SPECIFIC			OTHER		
	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION	URBAN	RURAL	COMBINATION
11		X			X																					X	
14																								X			
30																								X			
37							X			X															X		
60																								X			
61																									X		
66												X			X										X		
81																								X			
94																								X			
102																		X						X			
113																	X					X					
114																								X			
116																								X			
142																								X			
146											X																
157																								X			X
165														X													X
183																								X			
189																	X										X
191											X																X
200																								X			X
201																							X				
203																							X				
205																								X			
219																								X			
223											X																
239																								X			
246																								X			
252																		X								X	
261																								X			
264																	X										
282																								X			
284																								X			
292															X												X
316												X			X												
318											X		X			X											X

\*Populations are not exclusive. "Other" indicates Special Needs population in general.

### OCCUPATIONAL TRAINING

ASSESSMENT

OLLIER

77

76  
ERIC  
Full Text Provided by ERIC

Table 5. Agency Linkages

	Government Representatives	Employers Business & Industry	Labor Organizations	Community Agencies	Others	None Specified
011	X	X				
014	X	X				
030	X					
037						
060				X		
061						X
066				X		
081		X	X			
094		X	X			
102		X				
113		X		X		
114						X
116						X
142						X
146						X
157						X
165		X				
183		X	X			
189	X	X		X		
191						X
200		X				
201		X	X			
203		X	X			
205						X
219		X				
223						X
239		X		X		
246						X
252	X	X	X	X		
261	X	X	X			
264		X		X		
282		X	X			X
284		X	X			
292		X	X			
316						

Table 6. Evaluation Components

	Field Testing	Self-Evaluation by Project Staff	By Outside Authorities	Not Specified
011	X			
014		X	X	
030		X		
037			X	
060			X	
061			X	
066	X			
081	X			
094			X	
102			X	
113	X			
114	X			
116			X	
142			X	
146	X			
157	X			
165	X			
183		X		
189			X	
191	X			
200			X	
201	X	X		
203	X	X		
205				X
219	X			
223	X			
239		X		
246				X
252			X	
261		X		
264		X		
282				X
284		X		
292		X	X	
316	X			
318				X

Table 7 Dissemination Components

	INSTRUCTIONAL MATERIALS for					INFORMATION RESULTS for					MANUALS GUIDES for					OTHER for				
	Government Educational Agencies Educational Institutions Educators Professional Publications ERIC Others					Government Educational Agencies Educational Institutions Educators Professional Publications ERIC Others					Government Educational Agencies Educational Institutions Educators Professional Publications ERIC Others					Government Educational Agencies Educational Institutions Educators Professional Publications ERIC Others				
011	X	X																		
014						X										X				
030		X									X					X				
037			X					X												
055	X					X														
061						X														
066						X	X		X											
081		X														X				
094						X	X		X											
102							X			X	X									
113																X	X		X	X
114											X									
116						X			X											
142						X	X		X											
146	X	X														X	X	X		X
157								X									X			
165		X																		
183						X	X	X												
189							X			X			X							
191											X						X			
200							X	X												
201																			X	
203																			X	
205						X	X													
219		X																		
223											X									
239							X	X												
246									X											
252	X	X	X	X							X									
261		X					X													
264								X					X					X		
282		X															X			
284						X	X													
292										X						X				
316						X	X	X	X											
318						X	X	X					X							

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60011

GRANT NUMBER: G007603862

PROJECT TITLE : Feasibility of Developing Post High School Technician Training Programs for Emerging Energy Sources in the Southwestern United States

PROJECT DIRECTOR AND ORGANIZATION : Dr. Everett Edington, Professor of Educational Management and Development  
New Mexico State University  
P.O. Box 3AP  
Las Cruces, New Mexico 88003 505-646-2623

GRANT PERIOD : August 15, 1976 - February 14, 1978

FUNDING LEVEL : Federal: \$44,878 Local: \$2,782 Total: \$47,660

### OBJECTIVES OR PURPOSES

- 1) Determine how emerging energy policies in the Southwest relate to manpower needs
- 2) Identify emerging energy sources in the Southwest
- 3) Identify possible manpower needs in each emerging energy field
- 4) Identify levels of training needed for each identifiable occupation
- 5) Select two or three of the more promising emerging energy occupations, and:
  - a. Identify specific skills needed for the occupation
  - b. Develop instructional modules for the two or three most promising energy occupations

### PROCEDURE OR APPROACH

- 1) Governmental agencies, University Research Centers, and Energy Industries in the Southwest will be contacted to determine most promising emerging energy sources
- 2) Personal interviews will be made with each source identified in Arizona and New Mexico to determine emerging occupations
- 3) Instructional modules will be developed for one or two of the most promising occupations

### EXPECTED CONTRIBUTION TO EDUCATION

The results of the study will enable manpower specialists and vocational educators to better plan for providing trained manpower in emerging energy occupations.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60014 GRANT NUMBER: G007604261

PROJECT TITLE : South Dakota Vocational Education Follow-Up

PROJECT DIRECTOR : Mr. Keith Stover  
AND ORGANIZATION : South Dakota Department of Education  
Division of Vocational Education  
State Office Building No. 3  
Pierre, South Dakota 57501 605-369-2643

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$30,142 Local: \$1,675 Total: \$31,817

### OBJECTIVES OR PURPOSES

The purpose of the project is to develop a model adapted to South Dakota to be utilized in following up on graduates from the post-secondary vocational-technical programs in South Dakota. The specific purposes of the FY 77 project are to:

1. Revise the follow-up instruments based on results of FY 76 project.
2. Collect data from post-secondary program graduates, process it by computer and disseminate results.
3. Develop follow-up instruments for secondary vocational education program graduates and field test these instruments.
4. Compile a "Salary Survey" using salary data taken from the first and fifth year post-secondary follow-up questionnaires.
5. Develop a placement instrument to notify the vocational institutions of placement opportunities.

### PROCEDURE OR APPROACH

The instruments will be revised and/or developed utilizing input from the project Director, the State Vocational Staff and the local institutions' administration and staff. The revised instruments will be utilized to follow-up the one year and fifth year graduates and their employers. The data gathered will be processed through a computer analysis system. The results of the follow-up will be published in a format usable by the State and institutional personnel and will be distributed to the appropriate personnel.

### EXPECTED CONTRIBUTION TO EDUCATION

The project will result in the development of a statewide coordinated follow-up system that will become an on-going part of every vocational education program in South Dakota. The data gathered through the follow-up system will assist in making administrative, policy, supervision and curriculum decisions on a more objective basis.



## PROJECT ABSTRACT

Project Number : 498AH60030 Grant Number: GOO-76-03863

Project Title : Study of the Characteristics on Employment Needs in the Drugs and Pharmaceutical Industry in the Arecibo-Manatí Area of Puerto Rico

Project Director : Mr. José Lema Moyá, Assistant Secretary, Vocational, Technical and High Skills Education Programs  
Puerto Rico Department of Education  
P.O. Box 759, César Gonzalez and Calaf Sts.  
Hato Rey, Puerto Rico 00919 (809) 765-5850

Grant Period : July 1, 1976 to June 30, 1977

Funding Level : Federal: \$117,652 Local: \$8,479 Total: \$126,131

### Objectives or Purposes

At the end of the study, data collected will make possible to determine:

- (a) the homogeneity of industrial processes within the pharmaceutical establishments selected. (b) the job titles given by each industry selected to similar occupations. (c) the particular characteristics for each occupation within one industry and in relation to other similar industries. (d) the basic blocks of tasks and their sequence from the simplest steps to the most sophisticated ones stated in observable behavior.

### Procedures or Approach

The Assistant Secretary for Vocational, Technical, and High Skills Education will have the overall responsibility for project development. Six industrial engineers and an educational researcher will conduct the study which will be developed in two phases. During Phase I the appointed personnel will collect, analyze, and develop occupational data concerning occupations related with the drugs and pharmaceutical industry. A set of instruments will be designed for different purposes, among others; to interview workers, supervisory personnel and firm managers and to collect data related with job descriptions, specifications, etc. Data collected will be utilized in the preparation of job analysis charts and further on for the development of the curricula. Phase II of the study consists of the preparation of the curriculum based on job analysis charts developed in Phase I. Course outlines, subject descriptions, instructional units, teacher and student guide, learning modules will be prepared, tested, reproduced, and disseminated to all Technological Institutes where programs related with the drugs and pharmaceutical industry will be established or strengthened.

### Expected Contribution to Education

1. Job Analysis charts for occupations related with the drug and pharmaceutical industry will be developed to set up the base for program planning and curriculum development to be used in the training of youth and adults at the Technological Institutes.
2. The drug and pharmaceutical industry will be benefited by having available personnel specifically trained in their field.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60037 GRANT NUMBER: G007603865

PROJECT TITLE : Development, Implementation, and Evaluation of an Innovative Health Education Assistant Program

PROJECT DIRECTOR AND ORGANIZATION : Ms. Ruth Freedman  
St. Mary's Junior College  
Office of Educational Development, Evaluation and Research  
2600 South 6th Street  
Minneapolis, MN 55454  
(612) 332-5521

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$50,000 Local: \$35,438 Total: \$85,438

### OBJECTIVES OR PURPOSES

Principal Objective: To design, implement and evaluate an innovative two-year associate degree program to prepare a health education assistant. Subordinate Objectives: The project is designed to--facilitate completion of the development of the program; develop the clinical/fieldwork portion of the program; develop learning resource materials for the program; evaluate the students and the curriculum; share with other educators the products generated as part of the program; describe the functions of the health education assistant

### PROCEDURE OR APPROACH

The project funds will enable the Program Director to consult with additional faculty/outside personnel to continue development of a curriculum which is soundly developed with a conceptual framework, philosophy, terminal competencies, intermediate level competencies, and fully developed courses and modules. Provision is made in the program for both formative and summative evaluation. There is an operational plan for annual evaluation of the total program, which includes the plan itself, data from its use, review by the Vice President, Coordinator of New Programs, and College Studies Committee.

### EXPECTED CONTRIBUTION TO EDUCATION

This project relates directly to the development of new careers in fields of mental and physical health requiring less training than professional positions. Emphasis on health education cannot help but have an impact on the well-being of persons in our society. This worker has the potential of becoming an integral feature of that movement. ~~The program would also serve persons who are already in one associate degree health program and wish to expand their skills and enhance their marketability.~~

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60060 GRANT NUMBER: G007603718

PROJECT TITLE : Identification and Development of Competency-Based Curriculum for Water and Wastewater Program

PROJECT DIRECTOR AND ORGANIZATION : Mr. Larry Willis, Director of Career Education  
Kirkwood Community College  
Environmental Education Department  
6301 Kirkwood Blvd. SW  
Cedar Rapids, IA 52406  
(319) 398-5498

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$46,339 Local: \$1,881 Total: \$49,220

### OBJECTIVES OR PURPOSES

The major concern in Water and Wastewater Training Programs is to provide easy access to training and placement with minimum competencies in job skills, math, and reading. The following objectives support this concern: (1) To identify job/task and human relation competencies to enter field; (2) To convert existing curriculum to competency-based format; (3) To pilot revised curriculum; (4) To develop competency-based testing program; (5) To identify necessary competencies in math and reading to enter field; (6) To develop and pilot multi-level variable entry-exit developmental reading and math programs; (7) To utilize committee in carrying out objectives stated above.

### PROCEDURE OR APPROACH

The instructional staff will complete a task analysis of basic job/tasks, math, and reading skills necessary to succeed in the Water and Wastewater field through the utilization of an advisory committee. The one year curriculum will be redesigned based upon competency identification. A testing program will be designed based upon competency identification. The testing program will provide students an opportunity to test out or permit advanced placement.

### EXPECTED CONTRIBUTION TO EDUCATION

The project addresses and seeks innovative solutions to problems of serious significance to any open door institution whose mission includes career education, life long learning, equal educational opportunities and a strengthened cooperative relationship with local business and industry.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60061

GRANT NUMBER: G007604277

PROJECT TITLE : Individualization of Instructional Materials

PROJECT DIRECTOR  
AND ORGANIZATION:

Dr. Joe King, Jr.  
Jackson State University , Industrial Arts Department  
1325 Lynch Street  
Jackson, Mississippi 39217  
Telephone: Area Code 601 - 968-2472

GRANT PERIOD : September 1, 1976 through August 31, 1977

FUNDING LEVEL : Federal: \$27,795 Local: \$3,200 Total: \$30,995

### OBJECTIVES OR PURPOSES

The problem to which this project addresses itself is providing individualized professional education for vocational personnel with computer assisted instruction. Specifically, the objectives are as follows: (1) perform task analysis, develop curriculums, and establish behavioral objectives; (2) use modern techniques of program development; (3) design instructional material in reaching established behavioral objectives; (4) practice human relation skills in dealing with program personnel and others involved in vocational programs; and (5) develop instruments for measurement of teachers competencies which will hold implications for other systems.

### PROCEDURE OR APPROACH

The School of Industrial and Technical Studies will design and prepare a delivery system to conduct the necessary training. College credit will be provided by the university as a recognized teacher training institution. Individualized instruction will utilize the procedure for "Individually Diagnosed and Prescribed Instruction." The learning objectives are clearly specified and methods of instruction have been developed to enable learners to attain those objectives with computer assisted instruction. Students will be required to obtain their prescription and evaluation results on a weekly basis from a central location. Reports will include the pre- and post-test achievement for enrollees. Upon program completion, each student will be evaluated by: (a) self evaluation, (b) supervisor, and (c) outside consultants.

### EXPECTED CONTRIBUTION TO EDUCATION

This project will describe a delivery system designed to meet the individualized needs of each vocational educator with computer-assisted instruction; and at the same time enabling 10 participants to upgrade the important areas of "human skills," program "mechanics" and "technical" skills, and obtain academic credit through a recognized college. It is our conviction that with minor modifications this program can be used in the future to foster self-renewal and upgrading of other vocational teachers who may need such training at some time during their career due to changes brought about by research and technology. The State of Mississippi may use this approach to retrain already employed vocational teachers.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60066 GRANT NUMBER: G007603864

PROJECT TITLE : Development and Field Testing of Criteria, Instruments, and Procedures to Evaluate Vocational Educational Programs in the Metropolitan Community Colleges of Kansas City, Missouri

PROJECT DIRECTOR AND ORGANIZATION : Dr. Sue Dueitt, District Director of Educational Development  
The Metropolitan Community College  
Division of Planning and Development  
560 Westport Road  
Kansas City, MO 64111  
(816) 756-0220

GRANT PERIOD : September 1, 1976 to August 31, 1977

FUNDING LEVEL : Federal: \$75,782 Local: \$40,328 Total: \$116,110

### OBJECTIVES OR PURPOSES

The MCC evaluation project will develop data collection instruments and procedures for implementing and field testing the following curriculum evaluation model, which is based upon the outcome information needs of the institution and its stated goals for vocational education:

<u>Criteria</u>	<u>Points</u>
1. Program's relationship to job market profile	20
2. Program's level of community support	20
3. Program's success in meeting vocational aspirations of clientele	20
4. Program's success in terms of student performance	20
5. Program's cost effectiveness	10
6. Program's success in reaching handicapped and disadvantaged	10
	<u>100</u>

### PROCEDURE OR APPROACH

Because of the pervasive nature of the evaluation model, a great deal of information must be collected and analyzed. Over 10,000 questionnaires will be mailed out, and the responses must be key-punched and verified. Information must be extracted from a number of computer data bases such as the student information file, master course file, payroll file space and equipment inventory file, etc. New programs must be written before the computer can organize the survey data, integrate it with existing data bases, and score each program according to the six criteria of the model.

### EXPECTED CONTRIBUTION TO EDUCATION

The MCC evaluation project is a simple, objective approach to a highly complex problem. First, the evaluation scale is easy to understand. Second, the scale has relevance since it is based upon MCC's information needs and state goals. Third, the scale is comprehensive and realistic in incorporating social, economic, and political factors. Fourth, the model calls for objective and consistent comparison of each curriculum against established criteria. And fifth, the model can be implemented within a year at a relatively low cost.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60081                      GRANT NUMBER: G007603719

PROJECT TITLE : The Research, Development and Testing of a Competency-Based System of Instruction for Four Post-Secondary Agriculture Technology Programs in Kansas

PROJECT DIRECTOR AND ORGANIZATION: Dr. Gary E. Jarmer, Project Director  
Northwest Kansas Educational Cooperative  
135 West 6th  
Colby, Kansas 67701                      913-462-6781

GRANT PERIOD : 07-01-76 through 12-31-77

FUNDING LEVEL : Federal:\$83,018.00    Local:\$15,604.00 Total:\$98,622.00

### OBJECTIVES OR PURPOSES

The goal of this Research and Development Project is to develop a model system for improvement of post-secondary agriculture technology programs through a competency-based instructional system. Specific objectives are: 1) To develop and field test a competency-based curriculum development system for four post-secondary agriculture programs in a rural area vocational technical school and a rural community college. 2) To disseminate and further field test the developed system to other post-secondary schools in Kansas. 3) To develop and field test a system of competency-based teacher inservice. 4) To disseminate and further field test the developed inservice system to other post-secondary institutions. 5) To disseminate to all Kansas institutions of higher education who offer teacher education programs in Vocational Education the developed systems.

### PROCEDURE OR APPROACH

The project staff will collect competency-based curriculum materials which have been developed. Teachers will review the collected materials and use employers to validate these competencies selected as appropriate for their specific program. The project staff will initiate a needs assessment program to determine needed teacher competencies for each vocational program area. The inservice model will be developed to facilitate individual teacher progress in development of his competency based-curriculum. Dissemination efforts will be initiated to allow other areas of Kansas to participate in additional field testing activities.

### EXPECTED CONTRIBUTION TO EDUCATION

Considerable expansion has occurred in the number of agricultural education offerings at the post-secondary level in Kansas. This project seeks to identify alternatives to presently used methods for preparing individuals with varying abilities for successful employment as teachers of thirty-one agriculture technology programs serving nearly 1,000 students in post-secondary institutions.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60094      GRANT NUMBER: G007604307  
PROJECT TITLE : A Study of the Comparison of the Benefits of Secondary  
and Post-Secondary Vocational Education  
PROJECT DIRECTOR  
AND ORGANIZATION : Dr. William J. Nelson  
Montana State Department of Public Instruction  
Superintendent's Office  
State Capital  
Helena, MT 59601  
(406) 449-3126  
GRANT PERIOD : July 1, 1976 to December 31, 1977  
FUNDING LEVEL : Federal: \$29,874 Local: \$34,369 Total: \$64,243

### OBJECTIVES OR PURPOSES

The study will attempt to develop techniques for obtaining information from students and employers to assess the appropriateness and adequacy of training in vocational and technical education programs. The major thrust of the study will be to identify the economic, psychological and sociological benefits accrued to program completers.

### PROCEDURE OR APPROACH

(1) Assessment instruments will be developed through research of existing instruments and through the use of consultants; (2) Interviewers will be employed and trained to interview former students and their employers; (3) Population will be randomly selected and stratified into treatment and non-treatment groups of approximately 1190 subjects; (4) Data will be collated and analyzed through inferential statistical technique and conclusions and recommendations formulated.

### EXPECTED CONTRIBUTION TO EDUCATION

The project will be educationally significant since it should reveal the benefits of vocational education which are beyond job placement, i.e., sociological and psychological. If these benefits do exist, then the implications are clear for changing program goals and curriculum to strengthen those desirable benefits which may be identified.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60102

GRANT NUMBER: G007603955

PROJECT TITLE : A Procedure for Planning and Evaluating Senior High School Vocational Education Programs--Phase III (Project S.P.A.C.E. --Student Placement and Counseling Effort)

PROJECT DIRECTOR

AND ORGANIZATION: Dr. William E. Stock, Senior Consultant  
Division of Vocational-Technical Education  
Minnesota Department of Education  
550 Cedar Street--Capital Square Building  
St. Paul, MN 55101 612-296-2421

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$94,142 Local: \$62,968.54 Total: \$157,110.54

OBJECTIVES OR PURPOSES

This project addresses the problem area of providing assistance to high school students and early leavers in making a smooth transition from high school to some type of meaningful and relevant post-secondary activity. The general objectives for the project are stated below: (1) Increase the number of in and out-of-school youth and potential dropouts who become committed to some type of career goal or post-secondary activity. (2) Increase the degree of satisfaction students derive from their choice of a post-secondary activity. (3) Increase the number of students who respond positively towards the counseling, placement, and instructional services provided by the school. (4) Increase the awareness of employers, parents, and faculty about the services provided by the S.P.A.C.E. project.

PROCEDURE OR APPROACH

The project is being conducted at four sites in Minnesota; namely, a suburban school, an urban school, a comprehensive school, and a secondary cooperative center. Follow-up data is used to provide baseline information for planning and evaluation. Career counseling, instruction in job seeking skills, and placement services (educational and job) are provided to students. Project activities are implemented at each of the sites through the efforts of a full time placement officer and half time placement counselor.

EXPECTED CONTRIBUTION TO EDUCATION

The materials and processes developed from the project will be disseminated to the 437 school districts in the state. Utilization of the system and/or its component parts will provide services to students heretofore not served in making the transition to the world of work.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60113                      GRANT NUMBER: G007603866

PROJECT TITLE : A Model of Articulated Counseling Services  
for Post Secondary Programs

PROJECT DIRECTOR  
AND ORGANIZATION: Dr. Don Eshelby, Director  
Research Coordinating Unit  
North Dakota State Board for Vocational Education  
900 East Boulevard  
Bismarck, North Dakota 58505 (701) 224-3195

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$28,092 Local: \$3,500 Total: \$31,592

### OBJECTIVES OR PURPOSES

To develop a model for counseling services to be utilized by all post secondary institutions for the purposes of:

1. reducing the drop out and non completion rates in vocational education programs
2. better serving rural area students in vocational education programs
3. assessing the impact of existing vocational education programs on North Dakota Industry and Manpower.

### PROCEDURE OR APPROACH

A one year study will be undertaken to develop from existing programs nationwide, a model for comprehensive counseling services. Material to be considered will be obtained from any recognized supportive program to enable the project director to combine effective strategies into a fully articulated program which will encompass elements of student needs, individualized instructional philosophies, employment practices and needs, and regular program offerings. Student needs, background, and ability will be matched with program offering, industry need and education and community services as identified by counselor administered questionnaires and survey techniques.

### EXPECTED CONTRIBUTION TO EDUCATION

The model developed under this study will be used as the program to be offered in all post secondary institutions in North Dakota under the direction of the Vocational Guidance office. It will serve as the vehicle for counseling services to all students in those institutions. As such, it will provide comprehensive program to meet the needs of all students in post secondary programs as well as a source of information for industry and community personnel.

## PROJECT ABSTRACT

PROJECT NUMBER : 498 AH 60114                      GRANT NUMBER: G007603867

PROJECT TITLE : Vocational Education Module  
Rhode Island Educational Management Information System

PROJECT DIRECTOR : Frank M. Santoro, Deputy Assistant Commissioner  
AND ORGANIZATION : Rhode Island Department of Education  
100 Promenade St.  
Providence, Rhode Island 02908                      401-277-2691

GRANT PERIOD : July 1. 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$34,132. Local: \$20,000. Total. \$54,132.

### OBJECTIVES OR PURPOSES

To effect significant refinement and revision in the Vocational Education Module, in order to improve the responsiveness of the system to user needs, and provide managers at all levels with better and more complete information on vocational education.

1. To review in depth the current input/output structure of the student and financial sub-systems.
2. To make modifications needed to these sub-systems, and initiate data collection activities required to operationalize the Vocational Module.
3. To evaluate the performance of the system in meeting the users requirements, and accuracy of reported data.

### PROCEDURES OR APPROACH

1. Agencies offering vocational training programs at the adult and/or post-secondary level will be selected as pilots plus one local district offering vocational training at the elementary/secondary, and adult levels.
2. A task force will be convened consisting of representatives of the pilot agencies, the Department of Education and possibly Governor's Manpower Office, to review, recommend, and implement the revisions to the current system.
3. To evaluate the impact of the system on the planning, management, and control of vocational education programs in the pilot agencies by the task force.

### EXPECTED CONTRIBUTION TO EDUCATION

This system will assist the Educational Management to monitor: the current and predict future manpower needs of industry; the existing labor pool; available financial and educational personnel resources; student performance and achievement, marketability, both long and short term, of students having been enrolled in training; population trends; industrial growth patterns; and deployment of allocated resources.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60116      GRANT NUMBER: G007603320

PROJECT TITLE : Common Intra-Cluster Competencies Needed in Selected Occupational Clusters

PROJECT DIRECTOR : Mr. Ronald McClurg, Research Analyst  
AND ORGANIZATION : Des Moines Area Community College  
2006 South Ankeny Boulevard  
Ankeny, Iowa 50021      (515) 964-6413

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$58,440      Local: \$22,675      Total: \$81,115

### OBJECTIVES:

The purpose of this research effort is to identify a basic set of competencies within a broad occupational cluster that would permit a common teaching approach in post-secondary education. Specific objectives are:

1. To select an appropriate occupational cluster and to identify a set of occupations to be included.
2. To develop a roster of competencies which may be attained through training and to validate those competencies through a survey of practitioners.
3. To cross-tabulate the competency rosters to identify the common instructional requirements of the included occupations.

### PROCEDURE:

Selection of the occupational cluster will be based upon analysis of several variables, including: graduate employment potential, student interest, availability of educational programs, and others as appropriate.

Initial competency lists will be compiled from existing, curriculum objectives, other research reports, and from professional society or organizational sources. These competencies (skills and understandings needed for success in the occupation) will be validated by submission to a random sample of practitioners in each field. Validated competency lists will be cross-tabulated to thus define commonality among occupations.

### CONTRIBUTION TO EDUCATION:

The significance of this project lies in the refinement of a research model having applicability to other similar research. Outcomes will provide an extensive validation of competencies needed in selected occupations as well as those common to a number of occupations in a cluster of job titles. Findings may be utilized in curriculum revision, new program planning, personal career planning, and instructional evaluation, as well as provide a basis for additional educational research.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60142 GRANT NUMBER: G007603720

PROJECT TITLE : Proprietary Education: Alternatives for Public Policy and Financial Support

PROJECT DIRECTOR AND ORGANIZATION : Dr. Marcia Anderson, Asst. Professor  
Board of Trustees  
Southern Illinois University  
Vocational Education Studies  
Carbondale, IL 62901  
(618) 453-2620

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$87,475 Local: \$6,792 Total: \$94,267

### OBJECTIVES OR PURPOSES

1. Complete a comparative analysis of vocational program offerings of both public postsecondary vocational education and resident proprietary institutions in Illinois.
2. Gather and analyze selected data on the characteristics of resident proprietary institutions in Illinois.
3. Conduct a feasibility study of alternatives for public utilization of resident proprietary school vocational program resources in Illinois approved resident proprietary schools.
4. Publish a report incorporating the results of the above study activities along with recommendations for adjusting public policy so as to maximize the use of resident proprietary institutions in the state's postsecondary vocational education effort.

### PROCEDURE OR APPROACH

The study consists of four phases. Phase I will be conducted by mailed survey of those resident proprietary schools approved by the State of Illinois. The second phase will be the extensive review of literature to be used in two ways--determining the existing cooperation of public & private institutions and helping to prepare the instrument to be used in phase three. Phase three will employ a stratified sample of the school directory developed in phase one, and the instrument researched in phase two to conduct in school visitation to determine school readiness and cooperation for public support or cooperative programs. Phase four is the analysis of conclusions drawn from the above study activities and the development of project recommendations.

### EXPECTED CONTRIBUTION TO EDUCATION

The final report tentatively entitled "Proprietary Education: Alternatives for Public Policy and Financial Support" would summarize project findings so as to achieve the specific objectives. It would be disseminated widely within the state through formal organization channels, presentations to meetings of key professional groups and associations, and informally. The planned result would be adjustments in institutional practice, public policy, and legislation which would enhance both the amount and quality of postsecondary vocational efforts within Illinois.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60146 GRANT NUMBER: G007603321

PROJECT TITLE : The Special Vocational Education Needs of Women

PROJECT DIRECTOR AND ORGANIZATION : Dr. Ronald D. McCage, Director  
Research and Development Section  
Department of Adult, Vocational and Technical Education  
Illinois Office of Education  
100 N. First Street  
Springfield, Illinois 62777 217/782-4620

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$72,552.00 Local: \$4,854.20 Total: \$77,406.20

### OBJECTIVES OR PURPOSES

This project proposes a multi-faceted dissemination scheme for providing school administrators, counselors, teachers and students at the secondary and post secondary level with materials for broadening the career horizons of young women in vocational education. The project has two very broad goals which are:

1. To provide a dissemination system that when implemented will provide staff in Illinois school districts with the tools necessary to eliminate common stereotypical pressures that influence students' occupational preferences.
2. To provide all students and especially young women with the opportunity to make occupational choices unencumbered by outside social pressures.

### PROCEDURE OR APPROACH

A mini-curriculum has been developed, field tested and validated for students at grades 7-14 for the purpose of increasing students' awareness of the need for broadening the career horizons of women and at the same time, where possible, eliminate stereotyped thinking by young women and men. As a part of this project, awareness activities for preservice and inservice uses will be developed, a 16 mm film for high school age youth will be developed and tested, through a series of eight regional workshops a copy of the curriculum and inservice will be provided for each secondary school and community college in Illinois and self-evaluation instruments will be developed for districts to aid them in identifying counterproductive stereotypes in vocational education.

### EXPECTED CONTRIBUTION TO EDUCATION

This activity will make an important contribution to the total program of vocational and technical education in Illinois schools by attacking, in a variety of ways, the counterproductive influences brought on by sex role stereotyping at both the school district and student levels. Emphasis will be placed on working with each of the 650 secondary and community college districts that receive reimbursement for vocational education programs. The project proposes a positive effort to nurture and encourage in a sex fair way the career development of young women and boys.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60157 GRANT NUMBER: G007603721

PROJECT TITLE : Computer-assisted Guidance: An Individualized Counseling System

PROJECT DIRECTOR AND ORGANIZATION : Professor Patrick Suppes, Director  
Institute for Mathematical Studies in the Social Sciences  
Stanford University  
Sponsored Projects Office  
Stanford, CA 94305  
(415) 497-3131

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$66,134 Local: \$12,565.46 Total: \$78,699.46

### OBJECTIVES OR PURPOSES

The goal of the project is to apply knowledge gained in Computer-assisted Instruction and Computer Science to produce an interactive vocational guidance counseling program. Emphasis will be placed on four areas: 1. constructing models of the student's interests to guide the presentation of materials, 2. designing the system so that the data base is easily updated, 3. making the program simple to use, and 4. efforts to insure that the resulting system is modular and transportable.

### PROCEDURE OR APPROACH

The work will be conducted in three major phases: 1. Obtain and study as many other computer-assisted guidance systems as possible. Consult with experienced guidance counselors about what is needed. 2. Design and write the program. Initial testing and debugging, to include the data base. Further consultation with guidance counselors to insure genuine relevance to the guidance process. 3. Field-test and evaluate the system in a school environment. Extensive data will be collected and analyzed to allow an objective evaluation of the effectiveness and efficiency of the system.

### EXPECTED CONTRIBUTION TO EDUCATION

A demonstration of how sophisticated computer models of data representation can be applied to individualize the vocational guidance process in the context of computer-assisted guidance by producing a simple to use, transportable computer program with data bases which can easily be revised to fit a wide variety of economic and geographic conditions.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60165      GRANT NUMBER: G007603911

PROJECT TITLE : Develop and Mediate 72 Modules and Develop Capability to Reproduce and Distribute Mediated Materials

PROJECT DIRECTOR AND ORGANIZATION : Mr. Marvin R. Fielding  
State Fair Community College  
Vocational Technical Division  
1900 Clarendon Road  
Sedalia, MO 65301  
(816) 826-7100

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$95,566 Local: \$6,400 Total: \$101,966

### OBJECTIVES OR PURPOSES

Goals and Objectives for this project are:

1. To develop and field test 72 individualized instructional modules in four occupational areas.
  - a. Ascertain the content for 72 modules and individualize the modules.
  - b. Field test the modules at four cooperating institutions.
2. To develop a media center to mass reproduce individualized materials and to disseminate these materials.
  - a. Reproduce instructional materials and mediate modules with original photography, audio and graphic arts.
  - b. Develop state and regional marketing channels for the material.

### PROCEDURE OR APPROACH

Organize an advisory council to aid in the selection of 18 modules in each of the four career areas (Business and Office, Health Occupations, Welding and Agri-Business) to be individualized or revised and set a priority for development. Develop material into the module format complete with objectives, information pages, activity sheets, pretests, post-tests and media. Prepare a student packet, instructor guide and one form of media for each module. Develop introductory modules and sponsor statewide workshops. Distribute brochures describing materials available, and disseminate these materials at 10% over cost.

### EXPECTED CONTRIBUTION TO EDUCATION

The production of 18 modules in each of four occupational areas which will be individualized for student self-pacing. The development of a dissemination system and distribution channels to Missouri as well as regional institutions. The promotion of workshops to train instructors in the use of individualized materials. Improvement of instruction through the use of competency-based individualized materials. The development of materials which may easily be used by special needs persons.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60183 GRANT NUMBER: G007604945

PROJECT TITLE : The Systems Approach to Assessment and Evaluation of Post Secondary Vocational Education Programs

PROJECT DIRECTOR AND ORGANIZATION : Dr. John D. Hartz, Project Associate  
Board of Regents--University of Wisconsin  
Center for Studies in Vocational and Technical Education  
750 University Avenue, RM. 446  
Madison, Wisconsin 53706  
(608) 263-3679

GRANT PERIOD : October 1, 1976 to February 28, 1978

FUNDING LEVEL : Federal: \$150,000 Local: \$7,500 Total: \$157,500

### OBJECTIVES OR PURPOSES

The purpose of the project is to develop materials which can assist the local post secondary educators in planning and evaluating program components designed to facilitate acquisition of the non-job task skills necessary to obtain and maintain employment. Specifically, the objectives include: (1) Determination of the personal, interpersonal and social skills necessary for job acquisition and survival; (2) Development and field testing of an omnibus instrument/methodology designed to assess competencies in the determined skills; (3) Development of procedural guides for utilization of instrument in localized program planning and evaluation.

### PROCEDURE OR APPROACH

Research efforts to accomplish the above include: (1) a literature search and review to identify the critical non-job task skills; (2) a localized program specific survey of educators, employed and unemployed program completers and dropouts, and employers of former students to validate and/or augment the findings obtained in the literature search; (3) a search and evaluation of existing procedures designed to assess the critical skills identified; (4) the designing of new instruments/methodologies as needed; (5) the drafting of a preliminary omnibus instrument/methodology; (6) the field testing of an omnibus instrument/methodology; (7) administration of the field tested instrument to former students of specific programs in order to construct models and standards of employability for those occupations; (8) designing procedural guides on instrument utilization.

### EXPECTED CONTRIBUTION TO EDUCATION

The project efforts will generate the following products: (1) Review and Synthesis of Literature and Research in Job Securing and Job Maintaining Skills; (2) Assessing Employability-field tested instrument/methodology; (3) Guide to Effective Use of the "Assessing Employability" Instrument. Ultimately, successful achievement of the project goals should contribute to post secondary vocational education's goal of improving employability and employment prospects for students and former students.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60189 GRANT NUMBER: G007603433

PROJECT TITLE : Development of Methods and Procedures to Identify and Adapt Technical Positions and Curriculum to Meet Industry Needs

PROJECT DIRECTOR AND ORGANIZATION : Dr. Clifford L. Rall, Vocational-Technical Education Specialist  
Montgomery Community College  
Mannakee St.  
Rockville, MD 20850  
(301) 869-2800

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$43,930 Local: \$17,980 Total: \$61,910

### OBJECTIVES OR PURPOSES

In this project we expect to devise (1) methods of keeping informed of industry's needs within a specific technology, and (2) to effect a plan to enable students to obtain jobs as soon as they are employable.

Objectives: Establishment within a specific technology of methods and procedures: (1) to enable a postsecondary institution to cooperate with industry in incorporating continuous curriculum changes as such needed changes become apparent; (2) to determine which general education requirements are necessary for employment; (3) to maintain an accurate file of immediately available and emerging jobs; (4) to determine the point in training when the student is able to get a job and continue training after work hours if desired.

### PROCEDURE OR APPROACH

The electromechanical curriculum will be utilized as a vehicle to demonstrate a suggested meshing of postsecondary technical training and on-the-job requirements. Representatives of approximately 50 industries, school personnel, and consultants will formulate practicable procedures.

### EXPECTED CONTRIBUTION TO EDUCATION

It is expected that this research will demonstrate how industry and post-secondary education institutions can maintain a close relationship between school training and on-the-job working skills--with a minimum of effort--to enable trainees to get jobs in industries in which they are needed.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60191 CONTRACT NUMBER: 300760269

PROJECT TITLE : Development of Procedures and Instruments for Assessing the Productivity and Impact of Post-Secondary Cooperative Education and Work Experience Programs

PROJECT DIRECTOR AND ORGANIZATION: Charles L. Blaschke  
Education Turnkey Systems, Inc.  
1660 L St. NW  
Washington, DC 20036 Tele: 202-293-5950

CONTRACT PERIOD : July 1, 1976 - June 30, 1977 (12 months)

FUNDING LEVEL : Federal: \$20,673.00 Local: \$2,500 Total: \$23,173

### OBJECTIVES

The objectives of this project are: 1) to develop procedures and instruments for assessing productivity and impact of post-secondary cooperative education programs; 2) to develop training materials, including a manual and a workshop to train local cooperative education project directors to use the assessment procedures and instruments; and 3) to pilot-test these products.

### PROCEDURES

This work builds upon a general design developed in 1976 under Part C for improving planning, management and evaluation of cooperative education programs. The evaluation component of that design will be adapted to meet the special needs of post-secondary cooperative education program directors to focus on measures of productivity and impact, and to address the problems of sex and ethnic bias in cooperative education programs. Based on that design, procedures, instruments, a manual, and workshop materials will be fully developed and pilot-tested. The project will proceed as follows: 1) review relevant post-secondary cooperative education documents, studies and interview local directors regarding evaluation needs; 2) revise evaluation design to reflect special needs of post-secondary cooperative education programs and to focus on measuring productivity and impact (procedures for assessing both cost-effectiveness and program quality will be included); 3) develop specific procedures and instruments; 4) develop an instructional manual for use of the procedures and instruments; 5) develop guidelines for a training workshop in use of the procedures and instruments; and 6) pilot-test products with a post-secondary cooperative education program.

### EXPECTED CONTRIBUTION TO EDUCATION

The results of this effort will be a set of procedures and instruments for evaluating the productivity and impact of post-secondary cooperative education programs. In addition, a training manual to be used in workshops for local project directors will be developed. As post-secondary cooperative education programs are increasingly being scrutinized in terms of impact and effectiveness, this evaluation manual and accompanying workshop will assist local project directors in evaluating their programs and increasing their program's productivity.

PROJECT ABSTRACT

PROJECT NUMBER : 498AH60200

GRANT NUMBER: G007605242

PROJECT TITLE : Development and Validation of Competency Based Instructional Systems for Adult, Post Secondary, Special Needs, and Entrepreneurship via the IDECC Instructional System

PROJECT DIRECTOR : Dr. Larry E. Casterline, Executive Director  
AND ORGANIZATION : Interstate Distributive Education Curriculum Consortium  
The Ohio State University, 1885 Neil Ave.-119 Townshend  
Hall, Columbus, Ohio 43210 614/422-4202 x5

GRANT PERIOD : September 20, 1976 ~ March 20, 1978

FUNDING LEVEL : Federal: \$165,000 Local: \$48,633.24 Total: \$213,633.24

OBJECTIVES OR PURPOSES

The purpose of this project is the further development and validation of the IDECC System. The specific objectives are as follows:

1. To develop and validate a competency based adult distributive education instructional system.
2. To develop and validate a competency based post secondary instructional system.
3. To develop and validate a competency based special needs instructional system.
4. To develop and validate competencies for new and additional occupations in marketing and distribution.
5. To develop and validate a competency based learning system for entrepreneurship.

PROCEDURE OR APPROACH

The current IDECC Instructional System will be reviewed by separate panels of consultants for adult education, entrepreneurship, post secondary, and special needs. The panels will determine what part of the current instructional system (983 competency statements with 498 learning activity packets in ten curriculum sections) is appropriately leveled for their particular population. The packets that are inappropriate will be rewritten and field tested as necessary. Finally, the current IDECC System will be expanded through occupational analysis to include four additional USOE taxonomies for marketing and distribution.

EXPECTED CONTRIBUTION TO EDUCATION

The final result of this project will be competency based instructional systems for distributive occupations in adult, post secondary, special needs and entrepreneurship. Each system will give distributive educators the opportunity to individualize instruction for their respective population. Thus, the first comprehensive instructional systems for distributive occupations which will benefit four populations can be disseminated to distributive educators across the nation.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60201      GRANT NUMBER: G007605225

PROJECT TITLE : Cooperative Rural Career Guidance System  
A system linking postsecondary and secondary educational institutions that provide vocational education programs and linking these programs with community business, industry, and labor.

PROJECT DIRECTOR  
AND ORGANIZATION: Interim Director - Dr. Wilbert A. Berg, Dean of Education  
School of Education  
Northern Michigan University  
Marquette, Michigan 49855  
(906) 227-2400

GRANT PERIOD : September 1, 1976 - March 1, 1978

FUNDING LEVEL : Federal: \$100,000 Local: \$1,654 Total: \$101,654

### OBJECTIVES OR PURPOSES

The combination of various factors specific to rural settings, such as geography isolation, limited range of occupational exposure, and migration to urban centers, present unique problems in providing sound education and career guidance to secondary and postsecondary rural students. Currently a career guidance program has been developed to meet these needs. This program material will be used to meet the following objectives: (1) field test a comprehensive career guidance system for rural schools at postsecondary educational institutions, their feeder schools with assistance from business, industry, and labor support, (2) develop descriptions of existing cooperative agreements between educational institutions and industry, business, and labor, (3) develop guidelines for the establishment of new cooperative agreements between business, industry, and labor, and postsecondary and secondary educational institutions, (4) develop a set of case studies in the use of the cooperative rural career guidance system, and (5) conduct a national conference for State Department of Education personnel on the use of the cooperative rural career guidance system.

### PROCEDURE OR APPROACH

This project will be conducted in consortium with Northern Michigan University, and the Ohio State Department of Education with leadership provided by The Center for Vocational Education. The national product field trial will occur in five states. Two postsecondary institutions, feeder secondary schools, and community representatives will be identified in each state.

### EXPECTED CONTRIBUTION TO EDUCATION

(1) Tested career guidance system training materials which have a high degree of transportability throughout rural areas of the country. (2) Case studies of ten field site planning endeavors. (3) Exemplary community participation programs designed to link public institutions and those of business, industry, and labor for meeting the career development needs of rural youth.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60203

GRANT NUMBER: G007605052

PROJECT TITLE : Cooperative Rural Career Guidance System  
A system linking postsecondary and secondary educational institutions that provide vocational education programs and linking these programs with community business, industry, and labor.

PROJECT DIRECTOR AND ORGANIZATION : Mr. Harry N. Drier, Research Specialist  
Ohio State University  
The Center for Vocational Education  
1960 Kenny Rd.  
Columbus, OH 43210  
(614) 486-3655

GRANT PERIOD : October 1, 1976 to March 31, 1978

FUNDING LEVEL : Federal: \$253,975 Local: \$1,469 Total: \$255,444

### OBJECTIVES OR PURPOSES

The combination of various factors specific to rural settings, such as geography isolation, limited range of occupational exposure, and migration to urban centers, present unique problems in providing sound education and career guidance to secondary and postsecondary rural students. Currently a career guidance program has been developed to meet these needs. This program material will be used to meet the following objectives: (1) field test a comprehensive career guidance system for rural schools at postsecondary educational institutions, their feeder schools with assistance from business, industry, and labor support, (2) develop descriptions of existing cooperative agreements between educational institutions and industry, business, and labor, (3) develop guidelines for the establishment of new cooperative agreements between business, industry, and labor, and postsecondary and secondary educational institutions, (4) develop a set of case studies in the use of the cooperative rural career guidance system, and (5) conduct a national conference for State Department of Education personnel on the use of the cooperative rural career guidance system.

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### EXPECTED CONTRIBUTION TO EDUCATION

(1) Tested career guidance system training materials which have a high degree of transportability throughout rural areas of the country. (2) Case studies of ten field site planning endeavors. (3) Exemplary community participation programs designed to link public institutions and those of business, industry, and labor for meeting the career development needs of rural youth.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60205                      GRANT NUMBER: G007603868

PROJECT TITLE : An Empirical Study of Decisions Involving Post-Secondary Vocational School Training

PROJECT DIRECTOR AND ORGANIZATION : Dr. Lawrence S. Olson  
Department of Economics  
University of Rochester  
Rochester, N. Y. 14627                      716-275-3895

GRANT PERIOD : July 1, 1976 - August 31, 1977

FUNDING LEVEL : Federal: \$54,259    Local: \$3,905    Total: \$58,164

### OBJECTIVES

The purpose of this study is to analyse how and why people choose vocational school training and to estimate the short- and long-term effects of this training. Specific objectives are: 1) to determine the ways in which vocational school decisions affect and are affected by decisions about other training and about work, 2) to estimate the effects of policy alternatives (changes in tax laws, loan and scholarship availability, etc.) on these decisions, and 3) to examine similarities and differences between members of target groups (inner-city and rural students, program dropouts) and others as regards training choices and predicted effects of policies on these choices.

### PROCEDURE

The project will combine statistical analysis of three large national data sources with insights of field personnel. Decision functions for vocational training, college, and work will be estimated using data on young persons; near-term effects of training will be analysed on a slightly older group; and long-term effects will be examined on a middle-aged group. Inclusion of policy variables (eg. availability of Federally Insured Loans) in the estimated decision equations will allow predictions and projections of effects of policy changes. Separate estimation or use of appropriate interaction terms will provide indications of differences between target and non-target groups. Field personnel will be used to explain the results and make them more precise.

### EXPECTED CONTRIBUTION TO EDUCATION

Both a technical and a non-technical final report will be provided so that project findings can receive wide dissemination. The technical report should improve teaching and research about this training; the non-technical report should aid practitioners and upgrade career guidance. For all uses, the characteristics of the project--explicit treatment of target groups, joint analysis of vocational school training and work, use of long-term earnings data, and direct estimates of effects of policy variables--will make it superior to existing knowledge. Vocational schools serve over 3 million students per year, grossing over \$2.5 billion; the study should increase our understanding of this training.



## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60219 GRANT NUMBER: G 007603930

PROJECT TITLE: Entrepreneurship for Post-Secondary Institutions

PROJECT DIRECTOR Dr. Bruce A. Reinhart  
AND ORGANIZATION: The Center for Vocational Education  
1960 Kenny Road  
Columbus, OH 43210  
(614) 486-3655

GRANT PERIOD: August 1, 1976 - January 31, 1978

FUNDING LEVEL: Federal: \$100,000 Local: \$1,000 Total: \$101,000

### OBJECTIVES OR PURPOSES

This project builds upon a previous project that developed a 40-hour course of 22 modularized, instructional units for post-secondary vocational-technical students, entitled "Introduction to Entrepreneurship." It continues the previous effort with the following objectives: (1) design and develop a modularized, performance-based course of instruction, entitled "Becoming an Entrepreneur," that is an articulated extension of the course, entitled "Introduction to Entrepreneurship"; (2) plan, conduct, and evaluate two in-service workshops designed to motivate and capacitate 30 instructors from selected post-secondary schools in Ohio to teach both courses; (3) design and conduct a formative evaluation (field test) of both courses of study for the specific purposes of improving the instruction of entrepreneurship; (4) revise both courses based upon field test findings; and (5) prepare and conduct a dissemination plan that includes technical assistance to Ohio's post-secondary institutions and the distribution of information throughout the nation.

### PROCEDURE OR APPROACH

The project will develop a second 40-hour course of instruction in entrepreneurship that is modularized, experiential, performance-based and coupled to an abundance of resource materials. Both courses will be field tested with a pre/post-test design and revised on the basis of the findings. Two two-week workshops for 30 instructors will be conducted for teachers introducing the material in their schools. An advisory council of entrepreneurs will be used in the development and evaluation of the instructional materials. A dissemination plan will be recommended to the Office of Education to make the materials available at the conclusion of the project.

### EXPECTED CONTRIBUTIONS

This project is designed to help move vocational-technical instruction into the development of employers as well as employees at the post-secondary level. It will provide a full year of tested instructional materials in entrepreneurship and recommended inservice programs to use with teachers "across the board" in vocational-technical education. It will also address the dissemination task so that these instructional materials can be disseminated throughout the nation.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60223

CONTRACT NUMBER: 300760466

PROJECT TITLE : An Analysis of the Participation of Women in Training for Non-Traditional Occupations in Area Vocational Technical Schools, and Factors which Influenced their Decision to Enter and Remain in Such Training: Phase II, Secondary Schools.

PROJECT DIRECTOR  
AND ORGANIZATION : Ms. Roslyn D. Kane, President  
RJ Associates, Inc.  
1018 Wilson Blvd.  
Arlington, VA 22209  
(703) 524-3360

GRANT PERIOD : October 1, 1976 to September 30, 1977

FUNDING LEVEL : Federal: \$70,320 Local: \$2,886 Total: \$73,206

### OBJECTIVES OR PURPOSES:

The purpose of this research is to examine the decision making process of women selecting non-traditional vocational training to identify the crucial factors influencing their final training selection, and to identify educational programs and counseling techniques which have influenced them to enter non-traditional vocational training. Phase I of this project produced a vast quantity of information on postsecondary women in non-traditional vocational training. Phase II focuses on women enrolled in such training at the secondary level.

A specific objective will be to identify the differences in crucial decision making factors between secondary women in non-traditional training and those in other secondary vocational training. Comparisons will also be made between women presently in secondary training and those in postsecondary training. Educational personnel will be contacted to determine what methods and techniques they consider to be important in facilitating unbiased career decision-making, and if any methods are used that are transferrable for use at other schools.

### PROCEDURE OR APPROACH:

Non-traditional occupational programs offered at the secondary level will first be identified. A sample of schools offering these courses will be asked to distribute questionnaires to women students enrolled in non-traditional training programs and a control group. Questions will be asked on socio-demographic characteristics, educational experiences and the role educational personnel and other persons played in decision making. Educational personnel that women identify as very influential in their training selection will be contacted and requested to provide further information concerning programs which support a student's vocational decision and what they consider crucial factors in students decision making.

### EXPECTED CONTRIBUTION TO EDUCATION:

Information provided by this project will assist vocational education programs to recruit more women for training in nontraditional occupations. The information will enable educational personnel and policy makers to be better able to facilitate bias-free choices by young women selecting vocational training.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60239 GRANT NUMBER: G007603869

PROJECT TITLE : Ocean County Vocational Technical Schools/Ocean County College Articulation Plan for Career Development

PROJECT DIRECTOR AND ORGANIZATION : Mr. Frank W. Allen, Director of Career Development  
New Jersey Department of Education  
Division of Vocational Education  
225 West State St.  
Trenton.  
(201) 261-2222

GRANT PERIOD : July 1, 1977 to June 30, 1977

FUNDING LEVEL : Federal: \$62,000 Local: \$28,467 Total: \$90,467

### OBJECTIVES OR PURPOSES:

The project will develop a viable Career Education process which will provide students with next step options for career development. This will be accomplished by the following: 1. Expansion of present Career Resource Center; 2. Extension of Career Resource Center to Ocean County College; 3. Survey Business and Industry in Ocean County in order to develop a needs assessment for curriculum resources and potential job placement; 4. Hire additional personnel to develop learning units and a transportable presentation describing project; 5. Make business, industry and the community aware of project and how it will help them; 6. Develop an articulation model to meet needs of students; 7. Develop a career option program; 8. Study and analyze the anticipated need for Career Ladder Programs and 9. To institute a career education administrative and staff organization system to organize, operate, monitor and evaluate a comprehensive career education program.

### PROCEDURE OR APPROACH:

The objectives will be accomplished through workshops for education, business, industry and the community. There will also be a great deal of individual, and group counseling. Survey instruments will be developed to determine the needs of students, business and industry. The results of these surveys will provide information for developing student profiles and feasibility studies by the County College on which career areas they need to be developed. There will also be trips to business and industry by students to expand experiences out of school classrooms. This relationship will also enable speakers from the business and industry world to visit the various trade classes and speak to our students.

### EXPECTED CONTRIBUTION TO EDUCATION:

To develop a total effort of public education and the community toward career education through a "joint planning" on the part of administrators, teachers, counselors and a broad range of community representations in Ocean County. This effort will tie business, industry and education together in a program geared to find and meet the needs of the entire community. It will be flexible and open to every person desiring career information on choosing, deciding and placement.

PROJECT NUMBER : 498AH60246 GRANT NUMBER: G007603972

PROJECT TITLE : Installation and Assimilation of Educational Innovations  
in Vocational/Technical Programs

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Oscar G. Mink, Social Science Research Associate  
University of Texas at Austin  
Department of Educational Psychology  
Education Bldg., 262-D  
Austin, TX 78712  
(512) 471-7551

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$157,616 Local: \$26,733.70 Total: \$184,349.70

OBJECTIVES OR PURPOSES

There is extensive evidence that many meritorious research developments applicable for use in post-secondary institutions are not successfully installed or assimilated in many of the target institutions where they could be of considerable value. The result is that extensive research and development funds are not being optimally utilized. The dissemination of educational innovations has become a matter of serious urgency. Unfortunately, relatively little research has been directed within community colleges to an examination of the factors which facilitate or inhibit successful incorporation of innovation. It is the intent of this project to do an analysis of one of the most extensive efforts to introduce educational innovation to vocational instructors in community colleges in Texas: this was the introduction of individualized instruction. More than half of the community colleges in Texas participated more than four years ago in specially tailored training efforts to provide vocational/technical instructors with the necessary skills to individualize their course offerings.

PROCEDURE OR APPROACH

One of the two major thrusts of the study will be to follow-up vocational technical instructors who participated in that training experience in order to ascertain the extent to which individualized instruction is currently incorporated in their teaching efforts. Individual instructor innovation and institution variables will be examined in an effort to determine factors seen as accounting for the current status of teaching methodologies employed. The second major thrust of the research will be an effort to successfully install an educational innovation within a target community college through the use of experimental procedures considered promising by the investigators. These procedures will involve primarily the formation and use of an Action Research Team, a Diagnostic Review of the institution and examination of the leadership styles of relevant administrative personnel.

EXPECTED CONTRIBUTION TO EDUCATION

If successful, it is hoped that these procedures may serve as a prototype for use by community college and other post-secondary institutions in the installation of educational innovations in vocational technical education.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60252

GRANT NUMBER: G007603870

PROJECT TITLE: Competence Based Curricula Development for the Mining and Related Industries

PROJECT DIRECTOR  
AND ORGANIZATION:

Dr. Bryan V. Fluck, Executive Director  
Admiral Peary Area Vocational-Technical School  
Route 422 West, R.D. #2  
Ebensburg, PA 15931  
(814) 472-6655

GRANT PERIOD: July 1, 1976 to June 30, 1977

FUNDING LEVEL: Federal: 81,260 Local: 39,700 Total: 120,960

### OBJECTIVES OR PURPOSES

The grant provides for the further development and refinement of curricula for the occupations in and related to the mining industry. Specific objectives are:

1. To prepare task sheets for the mining and related occupations as listed in the Dictionary of Occupational Titles.
2. To develop a curricula that is competency based, modularized, and individualized.
3. To implement an already tested process of involving Technical Advisory Committees in the formulation of the specific tasks in the curriculum.
4. To develop and implement methods for curricula dissemination.

### PROCEDURE OR APPROACH

A position of curriculum specialist, directly responsible to the project director, will be established. The curriculum specialist will be responsible for coordinating the meetings of the Technical Advisory Committees, and for establishing communication lines between these committees, the faculty, and the writers and illustrators who will be brought on under this grant. Curriculum will be developed according to the DOT-Based Times System developed and tested previously. Faculty in the mining and related areas will be used for one to two weeks at a time to work with the Technical Advisory Committees.

### EXPECTED CONTRIBUTION TO EDUCATION

1. A complete curricula for the mining occupations will be made available for the first time.
2. A system for the continual education at Post-Secondary levels for adult students involved or about to be involved in mining will be made available.
3. Materials aimed at developing instructional staffs in the mining and related occupations will be made available and utilized.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60261 GRANT NUMBER: G007603722

PROJECT TITLE : Adult Vocational Education Research and Related Activities

PROJECT DIRECTOR AND ORGANIZATION : Dr. Louise J. Keller  
University of Northern Colorado  
Graduate Vocational Education Division  
Greeley, CO 80639  
(303) 351-2941

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$92,797 Local: \$6,500 Total: \$99,297

### OBJECTIVES OR PURPOSES

The project has three major thrusts: (1) Conduct a series of literature search and findings; and, engage in three research studies; (2) Plan, design, implement, and evaluate a Colorado Postsecondary Adult Cooperative Vocational Education Conference; and, (3) Design and develop instructional modules for the improvement of content and delivery of university graduate-level introductory instruction in adult vocational educ.

### PROCEDURE OR APPROACH

The Graduate Vocational Teacher Education Research Council at UNC composed of the Project Co-Directors, five Research Associates, and one Research Adviser will produce four Selected Annotated Bibliographies related to Adult Voc. Ed.; Complete three research studies entitled:

\*Determination of the Status of Adult Cooperative Vocational Education Programs in Colorado Postsecondary Institutions,

\*Assessment of Cooperative Agreements between Colorado Community Colleges, Area Voc-Tech Schools and Business, Industry, and Labor,

\*Development of an Instrument to Assess Employer Sponsored Career Development Programs for Sub-Professional Employees;

Conduct a state-wide conference to stimulate the development and/or expansion of adult cooperative vocational education at the postsecondary levels of education in Colorado; and produce three modules for university graduate-level introductory instruction to bring students with minimal preparation in adult vocational education to readiness for more indepth training. The Council is assisted by a Project Steering Committee composed of representatives from Colorado's adult vocational education programs as well as from business, industry, labor, and government.

### EXPECTED CONTRIBUTION TO EDUCATION

The research findings should provide planners and designers of adult voc. ed. programs and services valuable input data for decision-making. The result of the conference on Adult Cooperative Vocational Education should provide consensus on definitions, components, and criteria for adult cooperative programs; describe roles and role responsibilities for maintaining these programs and services; and expand adult cooperative vocational education significantly in Colorado. The instructional modules will enable a variety of teaching-learning options for both instructor and learner.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60264 GRANT NUMBER: G007603723

PROJECT TITLE : PROUD OPTION: Research in Support of Vocational Opportunities for Students Leaving Institutions

PROJECT DIRECTOR AND ORGANIZATION : Dr. Geoffrey C. Miller, Project Director  
The ALPHA Group  
40 Washington St.  
Wellesley Hills, MA 02181  
(413) 283-8938/8939

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$153,278 Local: \$34,500 Total: \$187,778

### OBJECTIVES OR PURPOSES

The purposes of this project are as follows: (1) To comprehensively evaluate the functioning levels of 56 institutional students and assess their vocational needs; (2) To canvass the regional employment market and identify new job opportunities appropriate to student functioning levels; (3) To assist the modification of vocational programs to mesh the training curricula with functioning levels necessary to achieve job competency; (4) To design and initiate a procedure to secure competitive or sheltered employment for individual students completing vocational training.

### PROCEDURE OR APPROACH

(1) A student functioning profile will be written for an initial 56 institutional students by extracting performance statements from each Core Evaluation (Evaluation mandated by Massachusetts State Law: Chapter 766 of the Acts of 1972); (2) Project staff will analyze current job data or regional employment conditions and projections. Personal contact will be made with potential employers, a catalog of possible occupations will be assembled, and a matrix developed showing the relationship between job performance statements and functioning levels of students; (3) The collected data will be shared bi-weekly with the instructional staff of the vocational programs. These will be used to adjust curricular objectives and activities to maximize training validity; (4) The project staff will provide the placement coordinators with up-dated information on potential employment. The placement coordinator will then place, supervise, and counsel the PROUD OPTION students in their work situations.

### EXPECTED CONTRIBUTION TO EDUCATION

PROUD OPTION will produce the following: (1) A matrix of job skills interfaced with student's functioning levels. This will become the basis for a manual to assess student vocational needs. The instrument will be field tested and distributed for use by evaluation personnel in 12 state institutions and 351 school systems in Massachusetts and nationally. (2) A manual on vocational curriculum modification and staff development to enable students leaving institutions to receive education in a vocational high school. This manual will be distributed along with the matrix of job skills; (3) Job placement services designed to achieve independent, community based employment within two years for the 56 PROUD OPTION students; (4) A variety of visual and graphic inservice tools.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60282 GRANT NUMBER G007605241  
PROJECT TITLE : The Effect of Alternative Career Decision-Making Strategies on the Quality of Resulting Decisions  
PROJECT DIRECTOR AND ORGANIZATION : Dr. John D. Krumboltz  
School of Education  
Stanford University  
Stanford, CA 94305  
(415) 497-2108  
GRANT PERIOD : September 1, 1976 to March 1, 1978  
FUNDING LEVEL : Federal: \$125,000 Local: \$6,250 Total: \$131,250

### OBJECTIVES OR PURPOSES

The primary purpose of the proposed research is to discover whether alternative approaches to making career decisions actually have any measurable impact upon the quality of the resulting decisions. More specifically: (1) To what extent does the teaching and application of rational, intuitive, or fatalistic strategies produce optimal decision outcomes? (2) To what extent does the teaching and application of each step in the proposed rational decision-making process contribute to optimal decision outcomes? (3) To what extent can individuals who will profit differentially from instruction in the various strategies of decision-making be identified in advance?

### PROCEDURE OR APPROACH

The first task is to develop a criterion instrument, the Career Decision Making Analog (CDMA), that will provide the basis for determining which decision-making strategies produce better outcomes. A brief questionnaire will then be constructed to assess each individual's habitual preference for using one of the three decision-making strategies. These data will be used to block for type of predisposition in each of the several treatments. There will be two major experiments. Experiment I is designed to compare the three overall strategies. Experiment II is designed to analyze the individual steps in the rational model, to see the extent to which each step contributes to the desired outcomes. Acceptance of responsibility for the decision will be estimated from responses to a short questionnaire administered at the end of the CDMA. Decision quality will be estimated from the similarity of DCMA outcomes to each decider's values.

### EXPECTED CONTRIBUTION TO EDUCATION

End products: (1) A criterion instrument that can be used to evaluate the outcomes of programs designed to develop career decision-making skills. (2) An assessment device designed to identify predispositions to various decision-making strategies. (3) A set of training materials for teaching various decision-making strategies, each identified as to its relative effectiveness in producing prescribed outcomes with identifiable individuals.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60284

GRANT NUMBER: G007603724

PROJECT TITLE : Project For Awarding College Credit For In-Service  
Training In Business And Industry

PROJECT DIRECTOR

AND ORGANIZATION : Mr. Thomas N. Bavier, Coordinator, Extension Programs  
Manchester Community College, Community Services Division  
P.O. Box 1046  
Manchester, CT 06040  
203-646-2137

GRANT PERIOD : August 20, 1976 to August 19, 1977

FUNDING LEVEL : Federal: \$35,939 Local: \$10,426 Total: \$46,365

### OBJECTIVES OR PURPOSES

The project will have the following objectives:

1. Identify in-service training programs of businesses in Connecticut.
2. Evaluate such training for the purpose of offering college credit.
3. Award credit for in-service training and provide courses on site.
4. Facilitate communication between the college and business and industry.
5. Assist Connecticut community colleges in developing similar programs.

### PROCEDURE OR APPROACH

The objectives of the project will be achieved through a three phase plan of action. In the first month the philosophy and design of the project will be promoted through the media, a brochure and personal contacts with businesses and related business organizations. Concurrently, data will be collected on existing in-service training programs and a list of target businesses will be developed. Personal contacts will then be made with top level management in target businesses to implement the program.

### EXPECTED CONTRIBUTION TO EDUCATION

The project will increase the accessibility of a college education to all segments of the labor force by recognizing the worth of in-service training by awarding credit for such and by providing courses on site at a time convenient to employees. It will increase the types of courses available at the college. It will expand the facilities, equipment and other resources of the college by combining resources of the college and business and industry. The project will bridge the gap between education and work by recognizing the legitimacy and worth of learning a trade or craft. It will provide an added incentive for employees who otherwise would not have continued their education.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60292 GRANT NUMBER: G007603322

PROJECT TITLE : The Design and Validation of Models for the Linkage and Coordination of Vocational Education at Post Secondary Institutions and Business, Industry, and Labor

PROJECT DIRECTOR AND ORGANIZATION : Mr. Bela H. Banathy  
Far West Laboratory for Educational Research and Development  
Instructional and Training Systems Program  
1855 Folsom St., San Francisco, CA 94103  
(415) 565-3197

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$146,824 Local: \$32,190 Total: \$179,014

### OBJECTIVES OR PURPOSES:

The overall project objective is to design, develop, and validate models for linking and coordinating vocational education programs of public and private postsecondary institutions with business, industry, and labor.

### PROCEDURE OR APPROACH:

The general procedure to be followed is to adapt organizational linkage and coordination models derived from an analysis of relevant research and literature. The adaptation will be accomplished through the following stages: (1) describe goals, content and organizational characteristics of selected postsecondary vocational education programs and the goals, occupational programs, and organizational characteristics of identified selected organizations in business, industry, and labor; (2) determine the degree, scope, and intensity of congruence and compatibility of these groups through a comparative analysis of institutional goals, programs, and organizational characteristics; (3) design alternative configurations of program linkage and coordination, and select the most promising configuration(s); (4) construct a model for program linkage and coordination; (5) specify vocational and work experience and relevant curricula, means, methods, procedures, and resources by which to implement linkage and coordination; (6) develop specific linkage and coordination plans and make arrangements for implementation; (7) implement the program, test and assess the program's impact, and make adjustments as indicated by the assessment; and (8) disseminate/report the findings.

### EXPECTED CONTRIBUTION TO EDUCATION:

The overall result of the project will be the development, description, and documentation of empirically tested models for linking and coordinating postsecondary vocational education with business, industry, and labor. The generic characteristics of the models will be carefully defined and described in order to make the models applicable for use in a variety of educational settings in communities across the nation.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60316                      GRANT NUMBER: G007603888

PROJECT TITLE : Research and Design Project for Disadvantages Student Programs

PROJECT DIRECTOR AND ORGANIZATION : Mr. Richard Handley  
Fresno City College  
1101 East University Ave.  
Fresno, CA 93741  
(209) 442-4600

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$157,092 Local: \$56,440 Total: \$213,532

### OBJECTIVES OR PURPOSES

This project is divided into four phases. The project objective is to develop plans that would refine and improve the quality of programs and services for vocational education disadvantaged and physically handicapped students. Sub-objectives are: Phase I, to conduct a needs assessment of the disadvantaged and physically handicapped (Phase I was completed in 1975); and Phase II, to design and field test in seven vocational education disciplines programs and services that will meet the "needs" identified in Phase I.

### PROCEDURE OR APPROACH

Following the education system planning analysis model developed in Phase I, Fresno City College will organize sixty-two instructors and eighteen administrators into teams to receive training in System Approach for Education that will assist them in designing and field testing instructional programs and services, and management plans for disadvantaged and handicapped students based on data and objectives derived from Phase I, Needs Assessment.

### EXPECTED CONTRIBUTION TO EDUCATION

(1) An educational planning/management model that has been tested and with a written report on successes and failures experienced. (2) Seven instructional field-tested programs including management plans. (3) Computer manuals for student audit, identification, follow-up and performance evaluation.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60318

GRANT NUMBER: G007603725

PROJECT TITLE: Identification of Exemplary Programs that Reduce the Dropout Rate from Vocational Education at the Postsecondary Level

PROJECT DIRECTOR

AND ORGANIZATION: Robert L. Gibson  
Indiana University Foundation  
Counseling and Guidance (Education)  
P.O. Box F  
Bloomington, IN 47401 812-337-9385

GRANT PERIOD: July 1, 1976 to June 30, 1977

FUNDING LEVEL: Federal: \$43,030 Local: \$17,500 Total: \$60,530

OBJECTIVES OR PURPOSES:

- A. To identify exemplary programs that reduce the dropout rate from vocational and technical education institutions at the postsecondary level.
- B. To evaluate these programs in terms of the development of relevant curricular offerings, supporting counseling and guidance services, and placement success.

PROCEDURE OR APPROACH:

- A. A sampling of postsecondary vocational and technical education programs would be surveyed.
- B. Exemplary programs will be identified and data collected to describe these programs in terms of curriculum relevance, guidance and counseling program development and placement effectiveness.
- C. Data will be interpreted to determine appropriate conclusions, implications, and recommendations.

EXPECTED CONTRIBUTION TO EDUCATION:

Reduction of the dropout rate from postsecondary and vocational education programs.

INDIVIDUALIZATION AND MODULARIZATION  
OF  
INSTRUCTIONAL MATERIALS

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## Individualization and Modularization of Instructional Materials

### Introduction

Pursuant to the purposes and authority contained in Section 131(a) of Part C of the Vocational Education Act of 1963, as amended, the U.S. Commissioner of Education's discretionary portion of the Vocational Education Research Program to be conducted in Fiscal Year 1976 was announced in the November 10, 1975 issue of the Federal Register. The closing date for receipts of applications was given as January 9, 1976. One of the four priority areas described as applicable for Fiscal Year 1976 was "Individualization and Modularization of Instructional Materials."

The description of the priority area of studies of instructional materials as quoted in the Federal Register is as follows:

Individualization and modularization of instructional materials.

The pressure for enrolling more students and a greater variety of students in vocational education is increasing. In order to meet this enrollment demand and to provide more effective instruction in a greater variety of educational settings, it is necessary to use technology oriented delivery systems.

The Commissioner is authorized to support applied studies and development projects of the type described below. Applications within this priority area must effectively demonstrate plans to eliminate sex bias in all aspects of the proposed work. The proposed work should address the following points:

- (1) Individualize or modularize instructional materials for use with a specific technology oriented delivery systems;  
and
- (2) Field test and evaluate the instructional materials.

### Analysis of Awards

A total of sixteen (16) studies were supported which addressed the priority area, Individualization and Modularization of Instructional Materials. Table I indicates the proposed methodology of the supported projects.

TABLE I

	PROJECT NUMBERS	INSTRUCTIONAL MATERIALS	FIELD TEST/EVALUATE	
ARIZ.	498AH60290	FEASIBILITY STUDY		X
DEL.	498AH60022	COMPUTER MANAGED SYSTEM	X	
FLA.	498AH60198	INDIVIDUALIZED LEARNING SYSTEM	X	X
GA.	498AH60082	INDIVIDUALIZED INSTRUCTIONS	X	X
		FEASIBILITY STUDY OF CAI		
HAWAII	498AH60084	INDIVIDUALIZED VOC-ED PROGRAM	X	X
ILL.	498AH60151	INDIVIDUALIZED MODEL	SUMMATIVE ASSESSMENT	
IND.	498AH60238	INDIVIDUALIZED ASSESSMENT	X	X
KY.	498AH60258	INDIVIDUALIZATION AND MODULARIZATION	X	X
LA.	498AH60026	DEVELOP CURRICULA (NO MEDIA OR II)	X	X
MICH.	498AH60038	INDIVIDUALIZED MODULES		X
N.H.	498AH60041	ALTERNATIVES TO INDIVIDUALIZA- TION		X
N.J.	498AH60229	INDIVIDUALIZED, MODULARIZED CURRICULA	X	X
N.Y.	498AH60057	TRG. TEACHERS FOR MODULARIZATION		X
S.C.	498AH60051	INDIVIDUALIZATION & MODULARIZATION	X	X
TX.	498AH60153	MODULARIZING INSTRU. MATERIALS	X	X
UTAH	498AH60276	INDIVIDUALIZED LEARNING MODULES	X	X

Table II indicates the potential significance of the supported projects.

TABLE II  
National, State or Local Significance

PROJECT NUMBERS	National Significance	State Significance	Local Significance
			X
498AH60290		X	X
498AH60022		X	X
498AH60198		X	X
498AH60082			X
498AH60084			X
498AH60151		X	X
498AH60238		X	X
498AH60258		X	X
498AH60026			X
498AH60038		X	X
498AH60041			X
498AH60229		X	X
498AH60057		X	X
498AH60051		X	X
498AH60153	X	X	X
498AH60276			

Table III depicts the target population of the supported projects.

TABLE III

	PROJECT NUMBERS	WOMEN	MINORITIES	DISADVANTAGED	GENERAL POPULACE
ARIZ.	498AH60290		INDIANS		
DEL.	498AH60022				SECONDARY
FLA.	498AH60198				VOC. TEACHERS
GA.	498AH60082			X	10-14 YRS. ADULTS
HAWAII	498AH60084				RURAL STUDENTS
ILL.	498AH60151				ADULTS X
IND.	498AH60238				X
KY.	498AH60258				SECONDARY POST-SECONDARY ADULTS
LA.	498AH60026				LEA VOC-TECH POST-SECONDARY
MICH.	498AH60038	X		X	X
N.H.	498AH60041			X	ADULTS X
N.J.	498AH60229				X
N.Y.	498AH60057				VOC. TEACHERS
S.C.	498AH60051				SECONDARY
TEX.	498AH60153				POST-SECONDARY
UTAH	498AH60276				SECONDARY POST-SECONDARY

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60022                      GRANT NUMBER: G007603807

PROJECT TITLE : The Development and Field Testing of a Computer Managed  
Delivery System for Individualizing Instruction in  
Vocational Education

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Nevin R. Frantz, Jr., Associate Professor  
University of Delaware  
Occupational Education Department  
Newark, DE 19711  
(302) 738-2573

GRANT PERIOD : September 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$17,559 Local: \$6,615 Total: \$24,174

### OBJECTIVES OR PURPOSES

The objectives of the project are to: (1) Develop a computer based system to deliver and manage an individualized instructional approach for multi-occupational programs; (2) Field test the computer based instructional system with a selected group of students and teachers in an area vocational technical high school.

### PROCEDURE OR APPROACH

The development of the system will involve computer programming for input and output of instructional modules. Procedures for scheduling students, providing instructional feedback, and monitoring student progress will also be accomplished. Completed system will be field tested to refine procedures and determine feasibility of providing multioccupational approach for use with vocational education teachers and students.

### EXPECTED CONTRIBUTION TO EDUCATION

Project will provide model for delivering instruction via a computer based system and determine feasibility of providing instruction for job entry competencies in several occupational areas.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60026      GRANT NUMBER: G007603605

PROJECT TITLE : A Project to Develop Performance-Based Instruction  
Through Task Analysis and In-Service Programs

PROJECT DIRECTOR : Dr. Harry J. Boyer  
AND ORGANIZATION : Louisiana State Department of Education  
Bureau of Vocational Education  
P.O. Box 44064, Capitol Station  
Baton Rouge, Louisiana 70804  
(504) 389-2312

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$165,194 Local: \$6,000 Total: \$171,194

### OBJECTIVES OR PURPOSES

1. To develop a system of choosing a catalog for development based on labor market analysis, student interest, and state and consortium priorities.
2. To develop a comprehensive in-service education program in the use of catalogs and a model for dissemination within the State of catalogs.
3. To develop learning activities in each instructional area under development .

### PROCEDURE OR APPROACH

A model has been developed for studying germane literature, developing task lists, surveying incumbent workers, and designing computer analysis of worker surveys, as well as the development of in-service training. As the project is initiated, the model will provide the structure for the occupational analysis for both occupational clusters selected for inclusion in the project. The project would become an integral part of Louisiana's curriculum development in the occupational fields produced by these efforts.

### EXPECTED CONTRIBUTION TO EDUCATION

The results and benefits of this project could have a substantial impact on the training, retraining, and upgrading of skills of workers involved in the selected occupational areas.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60038      GRANT NUMBER: G007603808

PROJECT TITLE : Individualized Modularized Vocational Education  
Incorporating Multiple Learning Strategies

PROJECT DIRECTOR  
AND ORGANIZATION : Ms. Jan Danford, Director  
Ingham Intermediate School District  
Capital Area Skill Center  
611 Hagadorn Road  
Mason, MI 48854  
(517) 676-3302

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$306,050    Local: \$221,962    Total: \$528,012

### OBJECTIVES OR PURPOSES:

1. Develop learning strategies that will enable EMI, visually impaired and non-reading and regular vocational education students to achieve specified objectives.
2. Write modules, without sex bias and that portray women and minorities in non-traditional roles, incorporating identified strategies.
3. Identify environmental modification needed for physically handicapped students.
4. Field-test and evaluate modules and instructional management system.

### PROCEDURE OR APPROACH:

This project will establish a profile for educable mentally impaired students, visually impaired and non-reading students and regular students based on each groups communication skills, attitudes, knowledge level, cultural and social factors. An analysis of each groups decoding skills and the channels of communication that will elicit appropriate responses from students will be made to determine the most effective strategies to employ in designing instructional modules.

Each vocational task will be analyzed to determine appropriate methods of coding and channels of communication available to transmit the message to the students. Matching the strategies available and those that will enhance achievement of objectives by a given group of students, will result in modules that will help overcome the barriers confronting students.

### EXPECTED CONTRIBUTION TO EDUCATION:

- 1300 vocational education instructional modules that incorporate alternative learning strategies for EMI, visually impaired and non-reading, ~~and regular students to achieve vocational objectives.~~
- student profiles for EMI, visually impaired and non-reading and regular vocational education students.
- environmental modifications for physically handicapped students to remove physical barriers to achievement of objectives.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60041      GRANT NUMBER: G007603809

PROJECT TITLE : Alternative Approaches to Individualization in Vocational Education

PROJECT DIRECTOR AND ORGANIZATION : Mr. John R. Faust  
Keene State College  
Main St.  
Keene, NH 03431  
(603) 352-1909 x246

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$28,578    Local: \$50,000    Total: \$78,578

### OBJECTIVES OR PURPOSES

The purposes of this project are to: (1) Test five selected individualized instructional programs by comparing the number, variety of students served and quality of these programs with existing similar traditional group instruction programs, and (2) Identify the organizational, program and teacher characteristics within each of these individualized instruction programs, disseminating this information to all secondary and post-secondary vocational education programs.

### PROCEDURE OR APPROACH

Using an instructional development model system and the five selected individualized instruction sites, the project staff will aid local program representatives to organize and strengthen their successful on-going programs. The project staff will then identify successful comparable group instruction programs. A comparison matrix will be developed and interpreted results will be disseminated to all area vocational facilities.

### EXPECTED CONTRIBUTION TO EDUCATION

The project will produce: (1) Five well organized on-going individualized instruction model programs; (2) A critical path in designing, implementing, and testing individualized instruction for New Hampshire; (3) Show how individualized programs can serve more and a greater variety of students with a broader range of individualized needs; (4) Improve the emphasis on efficient curriculum development in the eyes of secondary and post-secondary vocational administrators statewide.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60051      GRANT NUMBER: GOC7603810

PROJECT TITLE : Individualization and Modularization of Office Occupations and Trades and Industry Materials

PROJECT DIRECTOR AND ORGANIZATION : Dr. Arthur K. Jensen, Director and Professor of Education  
South Carolina Department of Education  
908 Rutledge Bldg.  
Columbia, SC 29201  
(803) 656-3116

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$124,163 Local: \$33,034 Total: \$157,197

### OBJECTIVES OR PURPOSES

The purpose of this project is to implement competency-based education in areas of bookkeeper, bank teller, automotive mechanic and carpenter utilizing criterion referenced measures identified from V-TECS catalogs. The objectives are: (1) Conduct an exhaustive search for multi-media individualized instructional materials, implementation models, materials design models, and models for training and retraining teachers in the implementation and management of such materials in the selected areas of instruction; (2) Evaluate, select for appropriateness, modify if necessary or completely design and develop material and models if existing materials are nonexistent or unsatisfactory; (3) Train participating personnel (administrative, instructional and aides) in the field test locations in implementation, effective utilization, and management of the individualized instructional system; (4) Initiate an evaluation program utilizing a model designed for, and presently being tested in South Carolina, an Appalachian Regional Commission project for implementation in FY 1979.

### PROCEDURE OR APPROACH

Objectives listed in the V-TECS catalogs will be sequenced and categorized into training levels. Existing individualized instruction materials will be searched, evaluated, refined and developed for applicability to effective instruction of these criterion referenced measures. A program will be developed to field test the final product.

### EXPECTED CONTRIBUTION TO EDUCATION

Over 13,000 students in over 760 classes enrolled in the four subject areas involved in this project in 1976-1977. It is anticipated that this project will provide the means of introducing effective competency-based education into the vocational programs of the state. It is also anticipated that the project will improve the quality of education, introduce the open-entry open-exit concept, allow for individual differences, and develop an effective evaluation of graduates.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60057 GRANT NUMBER: G007603981

PROJECT TITLE : Instructional Support System for Occupational Education (ISSOE)

PROJECT DIRECTOR AND ORGANIZATION : Dr. Edna C. Cardish  
Office of Occupational and Continuing Education  
New York State Education Department  
Albany, NY 12230  
(518) 474-5836

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$318,227 Local: \$264,273 Total: \$582,500

### OBJECTIVES OR PURPOSES

#### Modularized Curriculum

- . Development of modularized, performance-based occupational education curriculum by means of established, workable model will continue with validation by representatives of education, the job market, and other data sources serving as criteria. Modularized curriculum tools will be applied to individualized student needs.

#### Teacher Training

- . Additional teachers will be given training which will result in production of at least two new curriculum products in foods and building industry trades. Curriculum produced will be transported to additional teachers in the areas of automotive mechanics and office training.

### PROCEDURE OR APPROACH

#### Partnership Network

- . Utilizing the partnership model developed through a VEA FY'74 Federal grant, new members will be included in the process and products network. Utilizing established procedures, teachers entering the training cycle for the first time will be trained through special workshops in appropriate skills for modularized curriculum development including: module planning, performance objectives, criterion referenced measurements, critique of modules and structuring of differentiated learning activities.

#### On-Site Curriculum Development and Implementation

- . Curriculum development will proceed at project sites under the direction of curriculum coordinators who will schedule, conduct, and assume leadership of local meetings.

### EXPECTED CONTRIBUTION TO EDUCATION

#### Support System

- . Measurement of the results and effectiveness of the modularized curriculum tools of instruction in terms of student performance will be made.
- . Student Achievement Profiles will be compiled and available for use in counseling, reporting, and employability efforts.

#### Evaluation and Achievement Monitoring

- . Students will be provided with a record of achievement at the conclusion of their instruction. The products developed will be tested, transported and evaluated by teachers using them for the first time. Process and design of project will be basis for determining statewide program implementation for future.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60082 GRANT NUMBER: G007603811

PROJECT TITLE : The Development, Field Testing and Evaluation  
of Individualized Instruction Programs in Selected  
Vocational Occupations

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Russell Clark  
Georgia State Department of Education  
Office of Adult & Vocational Education  
Room 309, State Office Building  
Atlanta, Georgia 30334  
(404) 656-6711

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$197,749 Local: \$23,308 Total: \$221,057

### OBJECTIVES OR PURPOSES

The goal of this project is to develop an individualized instructional system for each of several vocational education program areas; to field test the materials in each program; to evaluate each program; and to study the feasibility of utilizing computer-assisted instruction in at least one program.

### PROCEDURE OR APPROACH

- (1) The development of individualized instructional systems in previously undeveloped areas.
- (2) The revision and/or extension of the individualized instructional systems previously developed in Georgia.
- (3) The development and pilot testing of a computer-assisted instructional program.

### EXPECTED CONTRIBUTION TO EDUCATION

An effort will be made to establish a system of developing individualized instruction that will serve as a model for all vocational curriculum development in the state.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60084

GRANT NUMBER: G007603812

PROJECT TITLE: Research in Individualized Vocational Education Programs for Small, Isolated, Rural Schools

PROJECT DIRECTOR Dr. George Y. Omura, Director  
AND ORGANIZATION: Research Center of Hawaii  
2879 Paa Street, Rm. 207  
Honolulu, Hawaii 96819  
Phone: (808) 833-2434

GRANT PERIOD: Sept. 1, 1976, to Aug. 31, 1977

FUNDING LEVEL: Federal: \$27,545 Local: \$22,400 Total: \$49,945

### OBJECTIVES OR PURPOSES

The project objectives include

1. The development of instructional materials in an occupational area, including prototypes, designed for small, rural, isolated secondary schools.
2. The field-testing of the developed instructional materials in a small, isolated, rural secondary school.
3. The utilization of the developed materials as a model for the development of instructional materials in other occupational areas.

Using the developed instructional materials, the learner will be able to

1. Progress through the materials at his own rate of learning.
2. Complete each competency-based instructional module with 100% accuracy.
3. Express preference for the individualized instructional materials over other materials experienced in the past.

### PROCEDURES OR APPROACH

The instructional materials package will be developed by the grantee organization and field-tested in a small, isolated, rural, secondary school. The instructional materials will be designed as modularized learning units in one occupational area to provide the learner with job skills for a specific occupation within a job cluster. The learning units will also be designed so that classroom teachers without specific training in vocational education will be able to implement the learning activities. The completed materials and procedures will be used as a model for development of learning units in other occupational areas. The sample for the field-test will be students in grades 10 - 12.

### EXPECTED CONTRIBUTION TO EDUCATION

The developed materials will be used as a model for the development of modules in other occupational areas. A minimum of 7 small rural schools (involving about 1,143 grades 10 - 12 students) will be able to utilize the materials modeled after the project prototype, to expand their learning experiences in career education, each school year.



## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60151

GRANT NUMBER: 6007603813

PROJECT TITLE: An Individualized Model for a Differentiated Secretarial Single Skills Lab

PROJECT DIRECTOR Mr. Jack Gualdoni, Dean of Technical/Vocational Education  
AND ORGANIZATION: Elgin Community College  
1700 Spartan Drive  
Elgin, Illinois 60120 (312) 697-1000

GRANT PERIOD: July 1, 1976 - October 31, 1977

FUNDING LEVEL: Federal: \$85,360 Local: \$13,525 Total: \$98,885

### OBJECTIVES OR PURPOSES:

The primary purpose of this project is to develop and evaluate 25 single skill secretarial individualized modules which will prepare students to enter the world of work for the first time, to up-grade their current job skills, or to regain skills acquired several years ago. The objectives are:

1. To develop 25 individualized single skill modules of competency-based performance.
2. To statistically test the achievement of students in the treatment groups versus students in the control groups.
3. To develop diagnostic tests related to single skills.
4. To develop, administer and test prevocational guidance elements.
5. To develop and test computer-managed student tracking record procedures.
6. To enroll 60 to 80 students in the single skills labs during the first 16 months.

### PROCEDURE OR APPROACH:

After completing a comprehensive review of literature, ECC's professional staff will develop specified measurable behavioral objectives. The maintenance staff will convert an existing lab into an individualized single skills lab by re-wiring and moving partitions. Learning packages will then be assembled with emphasis on multi-media activities. Diagnostic tasks for each of the single skills modules will be developed and non-sexist, non-discriminatory information will be disseminated into the public. Counseling and admissions staff will be informed of the goals and problems inherent in self-paced learning experiences. An estimated 30 students ("control group") and 30 students ("treatment group") with matched characteristics will be enrolled in the lab. Staff will track individualized student progress in both groups using pre-testing, evaluation instruments and record keeping procedures. Summative assessment will take place involving final testing of both groups and collection of information from students, staff and employers.

### EXPECTED CONTRIBUTION TO EDUCATION:

The results of this project are seen to have significant impact upon all other community colleges which conduct instruction in the secretarial science area. The project addresses and seeks a creative solution to the problem of providing instructional delivery systems oriented to the diverse populations which are attracted to community college technical programs. In addition, this approach would seem to have value to educators in other career education areas, to educators concerned with life long learning and to those agencies concerned with equal education opportunities.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60153 GRANT NUMBER: G007603926

PROJECT TITLE : Modularizing Instructional Materials Using Applications of Technical Concepts

PROJECT DIRECTOR AND ORGANIZATION : Mr. Daniel Hull  
Technical Education Research Center--Southwest  
P.O. Box 4395  
Waco, Texas 76705  
(817) 772-8756

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$279,987 Local: \$30,000 Total: \$309,987

### OBJECTIVES OR PURPOSES

To identify, develop, field test, and disseminate a series of short modules which illustrate applications for the Unified Physics Concepts. The module will enable students to relate and apply fundamental concepts of physics to practical problems encountered by technicians.

### PROCEDURE OR APPROACH

Technical Education Research Center-Southwest will organize a small, competent staff and use four (4) teams to produce modules and/or field test the material. Teams composed of faculty, employer organizations and technical specialists will be located throughout the country. Technical Education Research Center-Southwest staff will: 1) organize the teams; 2) identify the module matrix; 3) meet with teams periodically to review; 4) edit and revise drafts; 5) perform clerical and administrative functions; 6) prepare an instructor's guide; 7) prepare revised modules for publication; and 8) liason with additional schools and employers.

### EXPECTED CONTRIBUTION TO EDUCATION

The principle benefit is to increase flexibility of technical programs by any institution desiring to modernize its physics program. Modular instructional material may also be used to supplement an on-going program or convert it to the Unified Concepts approach. "The technical core" curricula are in emerging occupations and its students will find job opportunities which are not stereotyped according to sex. The use of modular instructional material could ultimately result in new combinations of physical facilities. Use of modular materials can help break down artificial lines between institutional divisions.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60198      GRANT NUMBER: G007603814

PROJECT TITLE : Development and Validation of a Competency-based, Preservice/Inservice Learning System for Vocational Teachers in the Implementation and Management of a Curriculum Delivery System for Individualizing Vocational Education

PROJECT DIRECTOR AND ORGANIZATION : Dr. C. Virginia Bert  
Florida State Department of Education  
Division of Vocational Education  
Knott Bldg., Rm. 204  
Tallahassee, FL 32304  
(904) 488-1831

GRANT PERIOD : June 30, 1976 to June 29, 1977

FUNDING LEVEL : Federal: \$171,020 Local: \$650,000 Total: \$821,020

### OBJECTIVES OR PURPOSES

The purpose of this proposed project is the development and field testing of a modularized, individualized, multimedia learning system designed to produce vocational instructors competent to implement and manage a totally individualized curriculum delivery system. Specific objectives of the project would be: (1) An analysis of the Florida Curriculum Delivery System Model and its components to determine instructional objectives in performance terms and development of criterion-referenced measures to assess individual mastery of those objectives; (2) Review, selection, and adaptation of existing instructional materials to match performance objectives following the CDS model procedures; (3) Development of new instructional materials using the analysis, media, selection, and instructional strategies procedures of the CDS model; (4) Formative evaluation and revision of adopted and developed instructional materials; (5) Development of an instructors manual; (6) Final production of a validated learning system for use in inservice and preservice training programs of vocational teachers as they individualize instruction.

### PROCEDURE OR APPROACH

The development and validation of the learning system would occur in three phases. Phase I: The curriculum delivery system model and procedural manuals developed for implementation will be analyzed to identify objectives. Criterion referenced measures will be developed and a comprehensive review of existing instructional materials will be conducted. Phase II: During the second phase, materials will be evaluated and small groups of teachers representing various student population will be formed. An instructor's course management guide will be developed. Phase III: The complete learning system will be produced and tested followed by a revision and production of the final product.

### EXPECTED CONTRIBUTION TO EDUCATION

The major outcome of the project will be a completely modularized, individualized learning system to train teachers in the management and implementation of a competency-based, individualized model for vocational instruction.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH6Q229                      GRANT NUMBER: G007603927

PROJECT TITLE : Cooperative Research and Development of Curriculum in  
Applied Vocational-Technical Math and Applied Vocational-  
Technical English

PROJECT DIRECTOR  
AND ORGANIZATION : Mr. George S. Lulos, Jr.  
Director of Career Education  
Glassboro State College  
Glassboro, NJ 08028  
(609) 445-5201

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$138,331 Local: \$49,500 Total: \$187,831

### OBJECTIVES OR PURPOSES

English and Math as subject areas represent basic skills necessary to people in all types of jobs, but communication and computation skills must be presented in terms of their applications on-the-job to keep the interest of vocational students. Therefore, we will: (1) Develop Applied English and Math instructional modules in cassette/slide packages for individualization; (2) Pilot-test, revise, and field-test the materials; and (3) Develop correlated in-service programs in support of implementation of the materials.

### PROCEDURE OR APPROACH

Phase 1: Design and produce instructional units by teams of Glassboro State College faculty and Vineland Public School teachers, with special provisions for prevention of sexual, racial, and other stereotyping.

Phase 2: Implement and pilot-test the materials, continuing the in-service foundation by continuing the association and meetings of the college-school district teams.

Phase 3: Revise and field-test the materials in several school settings, at the same time field-testing the in-service program as preparation for the field-test of materials.

### EXPECTED CONTRIBUTION TO EDUCATION

We hope to have some indication of answers to the following questions:

(1) By presenting Math and English in terms of their trade applications, do we increase student interest, motivation, and/or achievement?

(2) By using cassette/slide packages as the delivery system, do we individualize with good effect, and do we free teacher time for more detailed individualization?

(3) Can vocational teachers adapt to using individualized materials in basic skill areas, and can they make the linkages between Math and English and their trades?

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60238      GRANT NUMBER: G007603815

PROJECT TITLE : Assessment of an Individual's Job Related Skills and Knowledges

PROJECT DIRECTOR AND ORGANIZATION : Mr. Edgar E. Hornback  
Indiana State Board of Vocational-Technical Education  
17 West Market, Rm. 401  
Illinois Bldg.  
Indianapolis, IN 46204  
(317) 633-7675

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$151,978 Local: \$15,200 Total: \$167,178

### OBJECTIVES OR PURPOSES

(1) Participate with the Vocational-Technical Education Consortium of States (V-TECS) to acquire methodologies and technical services to research three domains including validating tasks performed on the job, writing performance objectives, and writing criterion referenced measures. (2) Provide in-service education for vocational teacher educators and vocational administrators relevant to the use of V-TECS curriculum research and information for program planning. (3) Develop and field test methodologies and materials for individualized assessment of student achievement including all tasks to be performed for 6 job titles. (4) Disseminate twelve individualized assessment packages to vocational teacher educators, vocational administrators and vocational teachers.

### PROCEDURE OR APPROACH

(1) Develop two domain catalogs of performance objectives and criterion referenced measures using the V-TECS development process of surveying job incumbents and by writing performance objectives with professional writing teams. (2) Provide workshops for in-service education relevant to V-TECS research for curriculum and program planning for teachers, educators and administrators. (3) Establish assessment model development teams to develop model methods and instruments using V-TECS research for assessment of student achievement. (4) Contract with the Indiana Curriculum Materials Center to print and disseminate assessment model packages to vocational educators.

### EXPECTED CONTRIBUTION TO EDUCATION

(1) Three V-TECS catalogs including at least one job title in each of three domains. (2) In-Service Education evaluation report using V-TECS for program planning. (3) Six model assessment packages based on V-TECS catalogs. (4) Dissemination of four thousand eight hundred model assessment packages.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60258 GRANT NUMBER: G007603816

PROJECT TITLE : Development and Field Testing of Individualized and Modularized Instructional Materials for Vocational Education

PROJECT DIRECTOR AND ORGANIZATION : Dr. Bruce Carpenter  
Kentucky State Dept. of Education  
Bureau of Vocational Education  
Capital Plaza Tower  
Frankfort, KY 40601  
(502) 564-3775

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$76,801 Local: \$133,220 Total: \$210,021

### OBJECTIVES OR PURPOSES

The purposes of this project are to: (1) Develop approximately 300 modules for five competency-based programs to accompany catalogs of objectives and criterion-referenced measures in selected occupational areas; (2) Field Test the instructional modules in ten field test sites; (3) Revise the instructional modules based on the evaluation information received from the field test program.

### PROCEDURE OR APPROACH

(1) An analysis of present curriculum needs will be conducted. (2) Writing teams will be identified for use in the writing process. (3) Inservice education activities will be conducted for the writing teams to assure the development of uniform and high quality curriculum materials. (4) The writing teams will, in a workshop setting and through individual efforts, develop the modules. (5) Field test sites will be selected with each program being tested at two sites. Thus, ten field test sites will be needed. (6) Inservice education activities will be conducted for all field test teachers. (7) Instructors and students will evaluate materials, making suggestions for improvements. (8) Modules will be revised based on field test input.

### EXPECTED CONTRIBUTION TO EDUCATION

The instructional modules developed in this project will directly improve the programs of 1200-1500 vocational students each year. In addition the skills secured by approximately 30 writers will serve as a catalyst for the improvement of curriculum development skills of all teachers in Kentucky.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60276 GRANT NUMBER: G007603817

PROJECT TITLE : Development of Learning Modules for Machine Shop Occupations

PROJECT DIRECTOR AND ORGANIZATION : Mr. A. Kent Randall, Professor and Chairman  
Manufacturing Engineering Technology Department  
Weber State College  
3750 Harrison Blvd.  
Ogden, UT 84408  
(801) 399-5941

GRANT PERIOD : September 1, 1976 to May 31, 1977

FUNDING LEVEL : Federal: \$52,288 Local: \$14,868 Total: \$67,156

### OBJECTIVES OR PURPOSES

1. We propose to finish the final one-third of the machine shop skill individualized learning modules and therefore have a completely individualized program in the machine shop occupational cluster. Some 150 modules will have been completed by project starting time, and this proposal will allow us to produce the final 70-75 skill modules needed. 2. We propose to finish validation of all the machine shop individualized instructional units completed in Phase I and Phase II. 3. We propose to clearly identify: (a) the 30% of the skills in each career level of the machine shop occupational cluster that takes 70% of the employee's time on the job and which the student must perform at the "articulation" level of psychomotor development; (b) the 20% of the skills in each career level of the machine shop occupational cluster that takes 10% of the employee's time on the job and which the student will be required to perform at the "precision" level of psycho-motor development; (c) the 50% of the skills in each career level of the machine shop occupational cluster that takes 10% of the employee's time on the job and which the student will be required to perform at the "manipulation" level of psycho-motor development.

### PROCEDURE OR APPROACH

Funding of the proposal will allow us to hire two faculty replacements so that two regular faculty who are experienced and proficient both in teaching and in producing individualized instructional units, will be available to write necessary modules on a full-time basis for nine months beginning in September of 1976. The 70 to 75 learning units would be completed by June, 1977, and validated during Autumn semester in the fall of 1977. Support services in typing and technical illustrating will be provided on a regular basis during the college year to insure completion of the units. Experienced persons are available to us. The learning units completed in Phase I (approximately 150) will be validated in a minimum of two high school and three post high school environments during college year 1976-1977.

### EXPECTED CONTRIBUTION TO EDUCATION

There will be a complete individualization and modularization of the machine tool occupational cluster that can be used in any high school and post secondary training programs in the country. These learning units will be validated in both high school and post high school shops. A teachers guide for each skill task will be developed.

## PROJECT ABSTRACT

Project Number: 498AH60290

Grant Number: G007603818

PROJECT TITLE: Feasibility Study for Providing and Array of Vocational Modules for Individualized Vocational Education in a Navajo Community School

Project Director

and Organization: Mr. Dillon Platero  
The Navajo Tribe  
Navajo Division of Education  
P. O. Box 308  
Window Rock, Arizona 86515 Telephone: (602) 871-4941 Ext:

GRANT PERIOD: JULY 1, 1976 - DECEMBER 31, 1977

FUNDING LEVEL: FEDERAL: \$49,465 LOCAL: \$8,650 TOTAL: \$58,115

### OBJECTIVE OR PURPOSES:

The primary objectives of this study are (1) to determine whether or not an array of vocational modules can be organized to provide a comprehensive variety of individualized vocational programs for all students in a small high school, (2) to provide a Program Catalog of vocational programs available to Indians, and (3) to develop a Planning Manual for use in other similar studies.

### PROCEDURE OR APPROACH:

The approach combines the talents and resources of the Navajo Division of Education and the American Institutes for Research. AIR developed research instruments which will be used by Navajo Division of Education to secure data on existing vocational programs for Indians, on the vocational needs and goals of Navajo youth and adults, and on job information and job competencies pertinent to the area of study. This data will be synthesized, with input from previous Navajo Division of Education studies and an advisory panel, and used by AIR and Navajo Division of Education to develop and assess the proposed array of vocational modules. The Program Catalog and Planning Manual will be developed as the research activities occur, and subsequently refined and finalized for publication.

### EXPECTED CONTRIBUTION TO EDUCATION

Expected contributions to education include (1) the development of an array of vocational modules that will provide a small high school with a wide variety of vocational training, (2) an improved program of career education for all students in the high school, (3) the Program Catalog and (4) Planning Manual described above.

## SPECIAL NEEDS POPULATIONS

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## SPECIAL NEEDS POPULATIONS

### Background

The Vocational Education Act of 1963, as amended in 1968, requires that particular consideration be given to the vocational education needs of handicapped persons and those with academic, socioeconomic, or other problems that prevent them from succeeding in the regular vocational program. Although the 1968 amendments provided that States use at least 15 percent of their annual Federal part B allotment for programs serving the disadvantaged and 10 percent for programs serving the handicapped, an analysis of such expenditures in relation to total expenditures for each fiscal year from 1970 through 1973, for example, indicate that many States have not spent a substantial portion of their part B funds for persons with special needs.

When this observation was made by the Comptroller General of the United States in his report to the Congress on the role of Federal assistance for vocational education, he indicated that "discussions ... concerning the vacillating level of expenditures for the disadvantaged and handicapped suggested that it was difficult to develop programs which would effectively deal with the problems of the disadvantaged and handicapped." Many State Directors of vocational education recognize that traditional systems of education and training for career development are inadequate in meeting the needs of, or in their availability to, some segments of our student population. These include the economically and socially deprived in both isolated rural and urban ghetto areas, ethnic and non-English speaking American minorities, females and those students with physical and/or mental handicaps as well as inmates in correctional institutions and children of migrant workers. The National Advisory Council on Vocational Education, summarizing 1973 State Advisory Council reports, stated:

"While recognizing that more disadvantaged and handicapped students were currently enrolled in vocational programs than at anytime in the past, the Councils expressed concern about the still very small percentage of these students being served in terms of the numbers needing vocational education. Of all the problems, this seems to be the one on which least progress had been made in terms of need and potential."

This observation is reinforced by the data contained in Table 1 below.

Table 1. Enrollments in Vocational Education, by Level and Target Group - Fiscal Year 1972-1979

Type	1972	1973	1974	1979 (Projected)
Disadvantaged	1,616,621	1,601,634	1,612,160	2,534,000
Handicapped	221,342	228,086	234,115	400,000

Source: U.S. Office of Education

The first year for reporting services to persons with special needs (disadvantaged and handicapped) was 1965 when 25,638 of these persons were enrolled in separate classes. Since that date, the number of students has increased nearly seven-fold. However, when the enrollments are related to total enrollments for vocational education, the number of disadvantaged students ranged from 13.9 percent in 1972, to 13.3 percent in 1973, and 11.9 percent in 1974. A similar pattern was followed by the number of handicapped students. In 1972, such students represented 1.9 percent of the total enrollment in vocational education, 1.9 percent in 1973, and 1.7 percent in 1974. It is projected that in 1979 the disadvantaged and handicapped will constitute 12.9 percent and 2.0 percent, respectively, of the planned enrollments in vocational education for that year. When the above enrollments are examined in terms of percentage change from the previous year, the disadvantaged had a decline of 0.8 in 1973 and an increase of 0.7 percent in 1974. The number of handicapped students increased 3.1 percent and 2.6 percent for the same reference years.

Given the concern on the part of Congress, as mandated in vocational legislation which it enacted for special populations with unique needs, efforts must be taken to strengthen the range and quality of vocational programs for these particular populations. Ways must be found to bring to the attention of educators involved in occupational training the problems, strengths, and differences among the various types of handicapped and disadvantaged so that knowledge and under-

standing may be used in the planning and operation of programs. Moreover, additional exploration is needed in the area of program development that will serve the needs of specific populations at varying grade levels. Methods and materials need to be developed or improved which are effective in vocational education and retraining programs for students with special needs. Pre-service teacher preparation programs likewise need improvement if classroom teachers are to become more responsive to the uniquenesses of students with special needs. These and many similar types of things must be dealt with by educators at the Federal, State, and local levels if the country is to have a viable vocational education program for special needs students on a permanent basis.

#### Priority Concern

Given the above ~~concern~~ and ~~need~~ for vocational education programs which are responsive to the unique needs of special populations, the U.S. Commissioner of Education authorized under Section 131(a) of Part C of the Vocational Education Amendments of 1968, the support of applied studies and development projects that build on existing knowledge that focus on special needs populations. Priority attention was given to:

1. Populations which require bilingual vocational education;
2. Populations in correctional institutions;
3. Migrant populations; and
4. Handicapped populations.

More specifically, support was provided for projects which focused on one or more of the following activities:

1. Bilingual vocational education
  - A. Develop improved methods of teaching students with limited English speaking ability.
  - B. Develop instructional material for use by teacher educators who teach either preservice or inservice vocational education. These instructional materials should be designed to aid the teacher educator how to effectively teach vocational education to students who have a limited English speaking ability.

- C. Develop vocational education curriculum materials for use by students who have limited English-speaking ability.

2. Correctional vocational education

The proposed work may assess the need for vocational education programs, evaluate existing vocational education programs or develop new vocational education programs for persons in correctional settings.

3. Vocational education for migrants

The proposed work should assess the need for vocational education programs for migrants, evaluate existing education programs serving migrants, or develop and evaluate new programs for delivering vocational education to migrants.

4. Vocational education for the handicapped

The proposed work may assess the needs and barriers to mainstreaming or integrating of appropriate handicapped students into regular vocational education programs, develop criteria for the identification of such handicapped students, or evaluate existing vocational education programs that mainstream handicapped students.

Applications Supported

Of the 360 applications submitted to the Office of Education for possible support in the fiscal year 1976 vocational education research competition, 118 focused on meeting the needs of special populations and represented a total request of \$10,731,787 in Federal funds. Of the 118 applications targeted on special needs populations, 27 (23 percent) were selected for grant or contract support. As can be seen in Table 2 below, 15 of the 27 awards (56 percent) went to four-year colleges and universities while three awards (11 percent) went to profit organizations and a similar number of awards to each of the following: junior or community colleges, non-profit organizations, and State institutions or agencies (non-Department of Education).

Table 2. Grant/Contract Awards by Type of Institution

Type	Number	Percent
Colleges and Universities	15	56
Profit Organizations	3	11
Junior/Community Colleges	3	11
Non-Profit Organizations	3	11
State Institutions or Agencies (non-Dept. of Ed.)	3	11
Total	27	100

The supported projects represented a Federal investment of \$2,367,574. This investment was complimented by additional investments on the part of the grant/contract recipients to provide a total investment in this targeted research area in excess of \$2.6 million. Table 3 indicates that colleges and universities received nearly three-fifths of the Federal funds invested in this priority area while non-profit organizations or institutions received 15 percent of the funds as contrasted to State institutions or agencies who received 11 percent. Profit organizations and junior or community colleges received 9 percent and 6 percent of the funds, respectively.

Table 3. Total and Average Size of Federal Investment by Type of Institution

Type	Total	Average Size
Colleges and Universities	\$1,395,059	\$ 93,004
Profit Organizations	223,287	74,429
Junior/Community Colleges	139,875	46,625
Non-Profit Organizations	349,626	116,542
State Institutions or Agencies (non-Dept. of Ed.)	259,727	86,576
Total	\$2,367,574	

The awards, on the average, amounted to \$87,688 and relate favorably with the average size of the awards given to the various types of institutions or organizations

#### Focus on Priority Activities

When the funded projects are analyzed in terms of the special populations which they addressed, 10 (37 percent) of the projects focused on students in correctional institutions and students with handicaps, respectively, while seven (26 percent) focused on students requiring bilingual vocational education. None of the funded projects focused on migrant populations. As can be seen in Table 4, 80 percent of the funds were invested in those projects concerned with inmates in correctional institutions and handicapped students.

Table 4. Special Populations by Number of Projects and Federal Funds Invested.

Special Population	Number of Projects	Percent	Federal Funds Invested	Percent
Bilingual	7	26	\$ 476,803	20
Correctional	10	37	962,928	41
Migrant	-	-	-	-
Handicapped	10	37	927,843	39
Total	27	100	2,367,574	100

When the funded projects are examined from the standpoint of the special population addressed in relation to the type of institution or organization receiving the award, some concentrations emerge as shown in Table 5.

Table 5. Special Populations by Number of Awards and Type of Institution

Special Populations	Coll. & Univ.	Profit Organ.	Jr./Comm Coll.	Non-Profit Organ.	State Instit./ Agency
Bilingual	3	-	2	1	1
Correctional	6	2	1	-	1
Handicapped	6	1	-	2	1
Total	15	3	3	3	3

Colleges and universities tended to be more effective when they addressed the needs of handicapped students or inmates in correctional institutions.

#### Analysis of Projects Supported

Of the 27 projects supported in the special needs priority area, seven (26 percent) are expected to have national significance while an additional three (11 percent) will have regional significance as contrasted to 15 projects (56 percent) with a State focus and two (7 percent) with a local focus. Table 6 indicates the geographic orientation of the projects in relation to the special populations.

Table 6. Special Populations by Number of Projects Supported and Geographic Orientation of Project Effort

Special Populations	Local	State	Regional	National
Bilingual	1	2	-	4
Correctional	-	7	2	1
Handicapped	1	6	1	2
Total	2	15	3	7

A larger percent of the bilingual projects are expected to have national significance than those focused on correctional (10 percent) or the handicapped (20 percent). Although an effort has been made to identify the educational significance of each project, it should be pointed out that a project with a clearly local orientation, for example, could be replicated by local education agencies across the Nation and become nationally significant.

In terms of the age groupings which the projects addressed, it is interesting to note that there was concentration on meeting the vocational education needs of youth, particularly those who are handicapped. Table 7 provides information on this variable and highlights the fact that 70 percent of the projects focused on corrections deal with both youth and adults.

Table 7. Special Populations by Number of Projects Supported and Age Grouping(s) of Students to be Ultimately Served by the Project.

Special Populations	Youth	Adults	Youth & Adults
Bilingual	3	3	1
Correctional	2	1	7
Handicapped	8	-	2
Total	13	4	10

By contrast, 80 percent of the projects focused on the handicapped deal singularly with youth - typically a person under 18 years of age.

When the projects were analyzed in terms of their level(s) of educational implication, some of the projects focused on more than one level, i.e., a project might touch on all levels, particularly in correctional institutions. Table 8 below highlights the concentration of projects that have implication for secondary education as well as postsecondary and adult education.



Table 8. Special Populations by Number of Projects Supported and Level(s) of Educational Implication.

	Ungraded	Secondary	Postsecondary	Adult
Bilingual	-	4	2	4
Correctional	6	8	7	8
Handicapped	3	7	3	1
Total	9	19	12	13

The projects are expected to produce a range of end products with some variation according to the special population being addressed by a given effort. This variability is shown in Table 9 below.

Table 9. Special Populations by Number of Projects Supported and Products to be Produced.

Special Populations	Curr. Dev./ Modifi- cation	Stds., Models, Guides for Curr. Dev./ Modifi- cation	Pers. Dev. & re- lated training material	Std. Assess- ment	Stds, Models, Guides for Pro- gram Dev.	Prog. Needs Assess- ment	Cost Analysis (mgt.)
Bilingual	4	2	-	3	-	1	
Correctional	2	-	-	-	8	1	
Handicapped	-	-	3	4	3	-	1
Total	6	2	3	7	11	2	1

The summary figures do not total to 27 - the number of projects - because in a number of instances, a project will have multiple end products. Of the projects focused on correctional institutions, a sizeable number will generate standards, plans, models, etc., for program development. By comparison, the end products being

generated for the handicapped are divided almost equally between student needs assessment, standards, plans, models, etc., for program development; and personnel development materials, e.g., training materials. End products for the bilingual projects center around curriculum development and/or modification and student assessments along with standards, models, guides, etc., for curriculum development and/or modification.

The end products will be disseminated in varying ways. In eight of the projects (30 percent), the dissemination will be restricted, as best that can be determined from the application, to providing the Office of Education with the final report as provided for in the grant or contract. As can be seen in Table 10 the end products of projects relating to the handicapped will be disseminated to a range of publics as will the end products generated in the bilingual efforts. As might be expected, the end products of efforts relating to correctional institutions will have a more limited distribution.

Table 10. Special Populations by Number of Projects Supported and Planned Dissemination of End Products

Special Populations	State Bds., Assoc. etc.	Coll. & Univ.	Practitioners	USOE only	Local or State Agencies
Bilingual	2	3	3	2	1
Correctional	-	-	-	4	7
Handicapped	2	4	2	2	8
Total	-	7	5	8	16

A number of conferences will be held to disseminate the project finding, i.e., end products. In selected instances, the project director will use the conference or briefing format as a means of obtaining some additional reaction to the materials which have been generated. Appropriate local and State agencies are planned recipients of a number of the end-products, particularly in the area of corrections and the handicapped.

Finally, the projects were examined from the standpoint of whether there was a provision for evaluation. As can be seen in Table 11, nearly three-fifths (59 percent) of the projects made some provision

for evaluating their project effort. Included in this number were all of the bilingual projects. In a number of instances, the end products were to be field tested while in other instances, the product(s), e.g., curriculum, was to undergo process or formative evaluation and/or summative evaluation. The projects targeted on correctional institutions, by contrast, tended to minimize this project element (70 percent) because of the nature of the projects and its adaptability to some of the basic evaluative concepts. Handicapped projects tended to build an evaluation design into project effort (60 percent). Particulars on the provision of an evaluation design in the projects are provided in tabular format.

Table 11. Special Populations by Number of Projects Supported and Provision for Evaluation

Special Populations	Evaluation Provided	Percent	Evaluation Not Provided	Percent
Bilingual	7	44	-	-
Correctional	3	19	7	64
Handicapped	6	37	4	36
Total	16	100	11	100

#### Summary

Analysis of the projects being supported to meet the vocational education needs of special populations indicate that a wide range of approaches are being used to meet the unique needs of populations which require bilingual vocational education, populations in correctional institutions, and handicapped populations.

Although applications were sought in three basic areas of bilingual vocational education, the competitive process was such that no application focusing on the development of instructional materials by teacher educators was selected for support. The need for work in this area was recognized by the National Advisory Council on Vocational Education in its 1975 summary of the 56 State Advisory Council Reports. Teacher training and the shortage of appropriately trained vocational instructors with significant work experience is a recurring theme in the various Council report. The Councils, in

general, would like to see a greater emphasis on competency based certification and some of the Councils, e.g., Iowa, expressed an additional concern for preservicing and inservicing teachers to develop and implement programs for the individualization of instruction. Such concerns translate into updating and upgrading teacher educators in a manner that will improve their teaching performance of vocational education to students who have a limited English speaking ability. Fortunately, projects are being supported which provide for the development of improved methods of teaching students with limited English speaking ability, including vocational education curriculum. These projects, though few in number, represent a "first step" on the part of the Vocational Education Research Program to bring about needed improvements for this client group.

Vocational education for migrants has been neglected in many of the States which, during the course of a year, use such workers to harvest seasonal crops and carry out other seasonally based work activity. Basic information is needed in this area on the exact status of such programs, the range and quality of existing programs in this area, and detailed characteristics of the student population. Such information, if it existed, would provide a framework for the development and evaluation of new programs for delivering vocational education to migrants, given their possible unique learning styles. Although this special needs population was given priority attention in the 1975 research program, no application merited support, given the competitive process by which applications were selected for support.

Within the correctional priority area, projects are being supported for assessing the need for vocational education programs along with evaluating existing vocational programs and, to a very limited extent, the development of new vocational programs.

A number of projects are being supported for assessing the needs and barriers to mainstreaming or integrating of selected handicapped students into regular vocational education programs while other projects have been targeted on the development of criteria for the identification of selected handicapped students. Through these and related project efforts, a considerable body of knowledge will be developed for helping achieve this educational objective. It should be pointed out, however, that the projects in reference are doing little more than touching the surface of effectively meeting the vocational education needs of this population group. Persons who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or have other health impaired handicaps are unique and therefore; do not

lend themselves to easy aggregation. Much work in curriculum development, teacher training, student assessment, and related elements in the teaching/learning process must be done if vocational educators are to achieve the mainstreaming of health impaired persons into regular vocational programs.

Finally, more effort needs to be expended in extending the R&D program to meet the unique vocational education required by an ever expanding range of special populations.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60017

GRANT NUMBER: G007604048

PROJECT TITLE : A Research and Development Project to Analyze Existing Barriers, Forecast Potential Problem Areas, and Prescribe Professional Development Solutions to Mainstreaming Handicapped Students into Vocational Education Programs

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Dennis C. Nystrom  
Department of Occupational and Career Education  
School of Education  
University of Louisville  
Louisville, KY 40208  
(502) 636-6225

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$65,000 Local: \$22,355 Total: \$87,355

### OBJECTIVES OR PURPOSES

1. Analyze specific voc. ed. needs of handicapped students with regard to integrating these individuals into regular voc. ed. programs.
2. Analyze existing barriers to voc. ed. mainstreaming of handicapped students and forecast potential problems and barriers.
3. Convert categories identified in #2 into professional development competency statements and instructional modules for special voc. ed. administrators, guidance personnel, and teachers.
4. Synthesize assessment and forecasting procedures, instructional module development techniques, and research design into a transportable model.
5. Incorporate project product into the on-going professional development activities in voc. and special ed. at the University of Louisville.

### PROCEDURE OR APPROACH

1. Determine the status of existing Region IV handicapped and mainstreaming programs in voc. and special ed.
2. Forecast problem areas in mainstreaming handicapped students into regular voc. programs by Delphi technique and computer analysis.
3. Develop a transportable model for use by Kentucky and other states interested in implementing mainstreaming procedures.

### EXPECTED CONTRIBUTION TO EDUCATION

This project will provide important information for program planners relative to the many possible questions that will arise and provide several suggested solutions to problems. It will result in instructional materials for professional voc. educators who may not be prepared to mainstream problems, and will provide a transportable model for use by Kentucky and other states.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60040                      GRANT NUMBER: G007604312

PROJECT TITLE : A Home Language Free Adult Pre-vocational and Audio-Visual Course in English-as-a-Second Language

PROJECT DIRECTOR AND ORGANIZATION : Dr. Philip D. Smith, Jr.  
West Chester State College  
Educational Development Center  
110 West Rosedale Ave.  
West Chester, PA 19380  
(215) 436-2636

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$83,710 Local: \$1,770 Total: \$85,480

### OBJECTIVES OR PURPOSES

The purposes of this project are to: (1) Develop a production-ready basic pre-vocational course in English-as-a-second language using an audio-visual approach which can be utilized with persons from any home-language; (2) Test and revise these materials; (3) Develop self-instructional instructor training materials which will permit teaching success by monolingual English speaking lay teachers.

### PROCEDURE OR APPROACH

The Project Staff will develop a complete set of competencies for basic pre-vocational oral and written English. The staff will also write and illustrate the course which will be field tested on non-English-speaking adults and revised prior to finalization.

### EXPECTED CONTRIBUTION TO EDUCATION

The Project will provide up-to-date basic pre-vocational English materials which can be used both in regular adult programs or with assurance of success by volunteers in non-traditional settings such as churches, community centers and vocational locations.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60049 GRANT NUMBER: G-07604310

PROJECT TITLE : Labor Market Effects of Occupational Education Programs  
for the Physically Handicapped

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Jacob J. Kaufman  
The Pennsylvania State University  
Institute for Research on Human Resources  
207 Old Main  
University Park, PA 16802  
(814) 865-9561

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$96,558 Local: \$3,379 Total: \$99,937

### OBJECTIVES OR PURPOSES

This project is concerned with the education, training, and eventual placement of physically handicapped students in the secondary schools. It will examine the occupational programs for this group of students in those schools in order to develop information on and measures of (1) the availability and utilization of secondary school occupational programs; (2) the costs of alternative programs and their effectiveness, in terms of the labor market experiences of the program graduates, both in the short-run and the long-run.

### PROCEDURE OR APPROACH

The procedures are two-fold. First, to limit the survey of programs, in terms of their costs and effectiveness, to schools in Pennsylvania, which is representative in terms of population, industrial, occupational and rural/urban structure. Costs will be determined by examination of school records, and short-run effectiveness by sample survey, including the utilization of the data bank of Pennsylvania, to the extent the data are available, reliable, and valid. A comparison will be made of the cost-effectiveness of programs specially designated for handicapped students with cost-effectiveness of regular occupational programs attended by handicapped persons and with a control group of 500 non-handicapped students. The long-run labor market experiences will be national in scope by utilizing data available from PROJECT TALENT.

### EXPECTED CONTRIBUTION TO EDUCATION

Fundamentally this project is designed to indicate "how much bang the public is getting for the buck". More importantly, it should reveal which programs provide a "bigger bang" for the same "buck" and which programs yield the same "bang" for a smaller "buck". The results could assist vocational schools to improve or to develop programs for the physically handicapped.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60052 GRANT NUMBER: G007604311

PROJECT TITLE : The Quality and Results of Vocational Education in Correctional Institutions

PROJECT DIRECTOR AND ORGANIZATION : Dr. Jacob J. Kaufman  
The Pennsylvania State University  
Institute for Research on Human Resources  
207 Old Main  
University Park, PA 16802  
(814)865-9561

GRANT PERIOD :: July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$103,202 Local: \$3,857 Total: \$107,059

### OBJECTIVES OR PURPOSES

In contrast with the usual studies of this type which compare an experimental group which has had vocational training in a correctional institution with a control group which has not had such training, this project will (1) evaluate the quality of the vocational program, (2) the level of skill attainment that the individuals attain when they leave the program, and (3) the educational climate of the institution. In addition, the study will (4) measure the "success of the program after the "students" leave the correctional institution, relating "success" to the broad educational climate of the institution.

### PROCEDURE OR APPROACH

The cooperation of five to ten correctional institutions will be obtained, particularly those which offer extensive vocational education or training. The quality of the program and the educational climate will be assessed by on-site visits and proficiency testing of the "students" when they have completed the programs. Personal interviews will take place for 200 former residents approximately six months following their release.

### EXPECTED CONTRIBUTION TO EDUCATION:

Recognizing that many residents of correctional institutions come from dysfunctional home environments and/or dysfunctional school environments, and recognizing the fact that correctional institutions do provide vocational education, it is essential to know the extent to which, if at all, the educational climate of correctional institutions continues to be dysfunctional. This project will contribute to a better utilization of educational resources in the correctional setting by determining the key variables which could lead to "success".

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60053 GRANT NUMBER: G007604434

PROJECT TITLE : Vocational Rehabilitation of the Hearing Impaired  
Mentally Retarded (HIMR)

PROJECT DIRECTOR  
AND ORGANIZATION : Mr. David Costello, Education Administrator  
Dixon Developmental Center  
Department of Mental Health and Developmental  
Disabilities  
2600 North Brinton Ave.  
Dixon, IL 61020  
(815) 288-5561 x416

GRANT PERIOD : October 1, 1976 to September 30, 1977

FUNDING LEVEL : Federal: \$83,858 Local: \$15,094 Total: \$98,952

### OBJECTIVES OR PURPOSES

The literature indicates that throughout the United States assessment tools specifically designed for the HIMR population are non-existent. Therefore, to resolve this undesirable state of affairs, the project proposes to: (1) A rehabilitative Skill Inventory directed toward the vocational behavior of the HIMR and already in formal use at our facility will be formalized and provided with written instructions for administration; (2) The RSI will be administered to a group of institutionalized HIMR, an institutionalized non-hearing impaired mentally retarded group, and a community based group of HIMR; (3) Scores in the RSI will be compared to performance on measures of intellectual ability, adaptive behavior and vocational competency. Pre- and post-training differences will be analyzed, the composition of the test will be examined statistically for characteristics of inter-rater reliability, stability, internal consistency and scalability.

### PROCEDURE OR APPROACH

To attain the aforementioned objectives, the project will establish a target population composed of 33 HIMR students. In addition, two control groups will be established, one consisting of HIMR students residing in the community and the other of institutionalized non-hearing impaired mentally retarded students. All students will be evaluated on the RSI and other pertinent assessment tools on a pre- and post-test basis. Curricula for these groups will be reviewed prior to the project and during the project training procedures and living environment will be replicated to the greatest degree possible. All the performance data for the RSI and other assessment tools will be evaluated and analyzed in order to validate the RSI.

### EXPECTED CONTRIBUTION TO EDUCATION

The end product of this research project will result in a validated assessment tool (RSI) designed specifically for the HIMR. The RSI will be able to adequately measure the performance of HIMR adolescents and adults, reflect student deficiencies and facilitate change in HIMR curriculums and can be used by interdisciplinary teams to formulate individual treatment plans. It is expected that the RSI can be utilized throughout the United States by facilities serving the HIMR.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60056 GRANT NUMBER: G007604313

PROJECT TITLE : Career Aspiration and Self-Congruence in the Education for Puerto Rican Youth

PROJECT DIRECTOR AND ORGANIZATION : Mr. James S. Cohen, Educational Consultant  
Area Cooperative Educational Services (ACES)  
800 Dixwell Ave.  
New Haven, CT 06511  
(203) 872-2569 .

GRANT PERIOD : July 1, 1976 to August 31, 1977

FUNDING LEVEL : Federal: \$47,229 Local: \$3,880 Total: \$51,109

### OBJECTIVES OR PURPOSES

(1) To assess need in the areas of Career Aspiration and Self-Congruence of Puerto Rican youth through the Piers Harris Self Concept Scale and the Comprehensive Career Assessment Scale; (2) To develop a Pilot Career Awareness/Orientation curriculum for use in Bilingual schoolrooms; (3) To implement the pilot curriculum and evaluate its effect on student progress in the researched areas; (4) To assess student progress as a result of the exposure to the program.

### PROCEDURE OR APPROACH

Upon the selection of an advisory panel, sampling procedures, test preparation and curriculum development will commence. Assessment will be through a Pre-Post Test research design. The Piers Harris Children's Self Concept Scale will measure Self-Congruence. The Comprehensive Career Assessment Scale will measure Career Aspiration. A pilot curriculum, developed by a team of educators, parents, and business people, will be implemented during a six week period. The population of students will be 13-16 year old Puerto Ricans, comprising approximately ten percent of one of Hartford, Ct.'s middle schools. All the subjects will be bilingual. Upon the completion of curriculum implementation, assessment of it and student progress will be made. Community meetings will be scheduled. Consistent and close coordination with the Hartford School System will be maintained. Efforts will be made by the Connecticut State Department of Education to implement the research findings through their training programs in Vocational Education.

### EXPECTED CONTRIBUTION TO EDUCATION

This research will provide relevant, practical information dealing with the education of Puerto Rican youth in the Hartford, Ct. school system. Approximately 9,500 children will be directly affected by this research. Other contributions include: A decrease in the number of dropouts within the experimental group; Increased teacher awareness concerning the research variables; An increased awareness of vocational education as a means to attain future goals and; A body of scientific knowledge from which to draw inferences and information for the development of relevant programming in this area.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60062 GRANT NUMBER: G007604835

PROJECT TITLE : Development of a System for Identification and Assessment of Special Needs Learners

PROJECT DIRECTOR AND ORGANIZATION : Dr. Rupert N. Evans  
University of Illinois  
Bureau of Educational Research  
354 Administration Bldg.  
Urbana, IL 61801  
(217) 333-4382

GRANT PERIOD : August 15, 1976 to February 14, 1978

FUNDING LEVEL : Federal: \$90,000 Local: \$9,000 Total: \$99,000

### OBJECTIVES OR PURPOSES

To develop practical procedures, guidelines and materials to assist LEA personnel to improve methods of identification and of educational assessment of students with special needs.

1. To generate functional criteria for identification of special needs learners in occupational education programs.
2. To formalize a conceptual model for identification and assessment of mainstreamed special needs learners.
3. To develop and field test a system for identification, assessment, instructional prescription, and evaluation of special needs learners to be used occupational education, instructional and administrative personnel.
4. To formulate a plan for dissemination of identification criteria, resource guides, and supporting materials.

### PROCEDURES OR APPROACH

1. Identify and review criteria currently used.
2. Formalize an improved identification and assessment model
3. Develop handbooks for use by administrative and by instructional personnel
4. Field test model and handbooks
5. Revise
6. Plan dissemination

### EXPECTED CONTRIBUTION TO EDUCATION

1. Evaluate the processes of identification and assessment in existing vocational programs which mainstream special needs students.
2. Reduce the difficulty of identifying and assessing the progress of special needs learners in mainstreamed and integrated vocational programs.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60074 GRANT NUMBER: C007604703

PROJECT TITLE : A Project to Design and Develop a Comprehensive Master Plan for Vocational Education in the Correctional Institutions of Missouri

PROJECT DIRECTOR AND ORGANIZATION : Dr. James A. Pershing, Assistant Professor  
Curators of the University of Missouri  
Columbia Campus  
Columbia, MO 65201  
(314) 882-3278

GRANT PERIOD : September 1, 1976 to February 28, 1978

FUNDING LEVEL : Federal: \$140,000 Local: \$30,623 Total: \$170,623

### OBJECTIVES OR PURPOSES

The mission statement for the study is to formulate a master plan for developing and implementing a comprehensive vocational education delivery system for persons in correctional settings in the State of Missouri. The following five goal statements have been established: 1. Assess the need for vocational education of persons in correctional settings. 2. Evaluate the existing vocational education delivery system. 3. Ascertain viable alternatives for delivering vocational education for persons in correctional settings. 4. Develop a master plan for providing a comprehensive vocational education delivery system for persons in correctional settings. 5. Develop a model plan for implementing an innovative and comprehensive vocational education delivery system at the new medium security facility being constructed in Missouri.

### PROCEDURE OR APPROACH

In Phase I of the project, the vocational needs of the inmate population will be ascertained, the effectiveness of the current delivery system will be evaluated, and the applicability of alternative delivery systems will be explored. In phase II, the project's master planning committee will develop a philosophy, goals, and objectives for the Division of Correction's vocational education delivery system. Phase III of the project will involve developing a master plan for implementing the proposed vocational education delivery system. An organizational model and management plan will be developed to assist in implementing the plan.

### EXPECTED CONTRIBUTION TO EDUCATION

The master plan for developing and implementing a comprehensive vocational education delivery system for persons in correctional settings in Missouri will have an impact on the entire prison population. Currently there are approximately 4,500 inmates located in seven institutions throughout the state. Forty-three percent of the inmates are non-white. Most come from disadvantaged backgrounds. The average inmate is 25 years of age with a median grade achievement of 7.6 years. Furthermore, the master plan will serve as a model that will benefit agencies in states other than Missouri that are interested in developing comprehensive vocational education delivery systems in correctional settings.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60088 CONTRACT NUMBER: 3007604313

PROJECT TITLE : Vocational Education and Corrections: An assessment of Opportunities and Needs

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Donald W. Drewes, President  
CONSERVA, Inc.  
1000 Chamberlain St.  
Raleigh, NC 27607  
(919) 832-5057

CONTRACT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$88,432 Local: \$1,000 Total: \$89,432

### OBJECTIVES OR PURPOSES

The objectives of the project are to: (1) Design a procedure and accompanying instruments for assessing correctional vocational education needs; (2) Field test the procedure in the North Carolina Department of Correction; (3) Make recommendations regarding improvements in vocational education programming in the North Carolina Department of Correction.

### PROCEDURE OR APPROACH

The objectives will be achieved by: (1) Assessment of the current and anticipated employment opportunities for ex-offenders, formal vocational education programs, services and activities presently available to inmates, experience opportunities presently available to inmates, legal and administrative barriers to employment of ex-offenders, perceived vocational education and employment needs of inmates; (2) Analysis of the congruency between assessed inmate educational and employment opportunities; and (3) Development of recommendations for improving the congruency between needs of ex-offenders for skill development and the opportunity to fulfill these needs.

### EXPECTED CONTRIBUTION TO EDUCATION

The end product will be a generalizable needs assessment methodology. It is envisioned that the results and recommendations will provide the catalyst and direction for the future development of a vocational diagnostic development program tailored to the unique occupational needs of each offender.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60107 GRANT NUMBER: G007604314

PROJECT TITLE : Developing Program Models and Prototype Training Materials to Meet Occupational Training Needs of Adult Women Offenders from a Correctional Institution

PROJECT DIRECTOR AND ORGANIZATION : Dr. Era F. Looney  
Virginia Polytechnic Institute and State University  
Division of Vocational and Technical Education  
Blacksburg, VA 24061  
(703) 951-5378

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$49,492 Local: \$25,104 Total: \$74,596

### OBJECTIVES OR PURPOSES

The primary objective of this project is to develop model curricula for vocational training programs, along with prototype instructional materials, for use in developing and upgrading occupational skills in adult women offenders from a correctional institution. This objective is to be achieved in four stages.

### PROCEDURE OR APPROACH

First is the assessment of the non-stereotyped occupational skill training needs and interests of women offenders in Virginia. This involves administering a written questionnaire to the offenders followed by brief personal interviews with selected offenders for validation purposes. Second is developing model vocational training curricula for the high priority areas of training indicated as most needed by the group of adult women offenders. Third is developing prototype vocational training materials in approximately five key areas of curriculum where no appropriate resources exist. Fourth is field testing, evaluating, and revising the instructional materials. Pilot-testing with selected offenders will ensure that the materials are suitable for their intended use. Each package and model curriculum plan will be subjected to a third party evaluation to promote more wide-based acceptance of the materials developed. Based upon field testing and the third party evaluation, each package and model curriculum plan will undergo revision; then each item will be professionally reproduced and made available to the general public on a cost-recovery basis.

### EXPECTED CONTRIBUTION TO EDUCATION

The results of this project will provide the staff at Virginia Correctional Center for Women with the basic data and materials needed for a future vocational training implementation stage. Since each vocational curriculum model and instructional package will focus on specific high priority needs of adult women offenders in Virginia, many of the same occupational training needs should be relevant to women offenders across the nation.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60118 GRANT NUMBER: G007604315

PROJECT TITLE : Development and Testing of Criteria for the Identification and Selection of Mentally Handicapped Students for Vocational Programs

PROJECT DIRECTOR AND ORGANIZATION : Dr. James F. Shill, Director  
Research and Curriculum Unit  
Mississippi State University  
Vocational and Technical Education  
Drawer DX  
Mississippi State, MS 39762  
(601) 325-2510

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$47,443 Local: \$7,800 Total: \$55,243

### OBJECTIVES OR PURPOSES

The primary purpose of the project is to develop identification and selection criteria for use in enrolling students in "special vocational programs or, in some cases, allowing students in "special programs to be mainstreamed into "regular" vocational programs. In order to attain the primary purpose of the project, the following specific objectives were designed: (1) To utilize a project steering committee for project planning, review, and evaluation; (2) To catalog, review, and analyze components of systems and studies that impact on identification and selection of the mentally handicapped and slow learners for vocational programs; (3) To design tests involving vocational skills prediction for use with the mentally handicapped and the slow learner; (4) To determine "success" norms obtained by mentally handicapped students in specific vocational programs; (5) To determine the feasibility of "special" vocational programs for mentally handicapped, serving as a bridge into regular vocational programs for additional skill development; (6) To develop an identification and selection criteria for mentally handicapped students entering special vocational programs sponsored by the Mississippi State Department of Education, Vocational and Technical Division; and (7) To develop reports for regional and national dissemination of the findings of the project.

### PROCEDURE OR APPROACH

The procedure includes the analysis and cataloging of materials and/or systems currently used in the identification and selection of EMR's Staff, consultants, and steering committee members will design vocational prediction tests for use with EMR's in rural school systems where expensive testing systems are not obtainable. Tests will be field-tested, revisions made as required, and retested. Students in current programs will be tested to determine norms to utilize in identification and selection of EMR's for vocational programs. Surveys of instructors in both handicapped programs and in regular vocational programs will be conducted to determine the feasibility of mainstreaming handicapped students.

### EXPECTED CONTRIBUTION TO EDUCATION

Development of inexpensive tests to determine vocational skill prediction for mentally handicapped students. Development of an official identification and selection criteria for selecting mentally handicapped students.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60124 GRANT NUMBER: G007604053

PROJECT TITLE : A Study of the Acquisition of Vocational Concepts by Bilingual Students in Vocational Education Programs

PROJECT DIRECTOR AND ORGANIZATION : Dr. Donald L. Clark, Associate Dean for Research  
Texas A&M Research Foundation  
P.O. Faculty Exchange H  
College Station, TX 77843  
(713) 845-5311

GRANT PERIOD : July 1, 1976 to December 31, 1976

FUNDING LEVEL : Federal: \$32,888 Local: \$1,846 Total: \$34,734

### OBJECTIVES OR PURPOSES

The principal goal of this research effort is to determine the effect of Spanish-English bilingualism on the acquisition, retention and transfer of vocational concepts for Spanish-speaking students including those with special learning needs who are enrolled in vocational education programs. Specific objectives for the study include: (1) To determine if there are significant differences in levels of concept acquisition and retention across various student classifications as a function of being given oral instruction in either Spanish or English, (2) To determine the extent to which such student characteristics as occupational aptitude, IQ, reading level, socio-economic status, and previous learning serve as predictors of the rate and extent of acquisition and retention of vocational concepts by bilingual students, and (3) To determine the influence on concept acquisition, retention and transfer of variable speech rates, redundant information, labels, group size, and various presentation formats.

### PROCEDURE OR APPROACH

Variables influencing the attainment of vocational concepts by bilingual students including (1) characteristics of the learner, (2) variables within the instructional situation, (3) the mode of concept presentation, (4) the complexity of the concept learning task, and (5) the responses and feedback that occur, will be examined under carefully controlled experimental conditions. Correlation studies will be made between selected student variables and concept attainment, retention, and transfer. Differences in concept learning as a function of Spanish-English language predominance will be assessed through a series of related experiments which utilize randomized control-group pretest-posttest experimental designs. Data will be compiled, statistically analyzed, and prepared for dissemination to vocational teachers.

### EXPECTED CONTRIBUTION TO EDUCATION

Results of the research should benefit bilingual vocational students as well as teachers, employers, publishing firms, teacher trainers and program supervisors and consultants by providing them with an efficient model for teaching concepts and for developing materials with respect to the influence of bilingualism. The study will also provide program planners and curriculum developers with useful data for making comparisons between regular, disadvantaged, and handicapped bilingual students.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60152 GRANT NUMBER: G007604049

PROJECT TITLE : Correctional Vocational Education Research

PROJECT DIRECTOR  
AND ORGANIZATION : Mr. Michael Martin, Correctional Coordinator  
Chemeketa Community College  
4000 Lancaster Dr.  
P.O. Box 1007  
Salem, OR 97308  
(503) 399-5135

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$59,516 Local: \$13,500 Total: \$73,016

### OBJECTIVES OR PURPOSES

Development of attainable career goals for each student; motivate and assist students to attain highest level of academic, vocational, social, and economic development; articulation of institution vocational education programs with community college technical programs to improve skill training; provide educational services (counseling, plan development) to residents on work-training release and parole; apply a quasi-experimental research design and report research results to community colleges and correctional facilities.

### PROCEDURE OR APPROACH

A research/demonstration project is aimed at specific needs of the inmates at Oregon State Penitentiary and Oregon State Correctional Institution. Research design is intended to evaluate existing vocational education programs offered within correctional settings. The project design includes career guidance and counseling, skill training, extension of training into the community, and a quasi-experimental research design.

### EXPECTED CONTRIBUTION TO EDUCATION

Major outcome will be a vocational education program which clearly demonstrates capability of community-based training facilities (in this case, a community college) to provide on-line training in correctional setting. Differing effects of degree-oriented/non-degree-oriented instruction on inmate attitudes and career choices will be measured. Results will be delivered to state and local agencies and U.S. Office of Education.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60166 GRANT NUMBER: G007604050

PROJECT TITLE : Research and Development of Instructional Booklets for Vocational Educators for Mainstreaming the Handicapped

PROJECT DIRECTOR AND ORGANIZATION : Dr. Robert E. Fowler  
University of Florida  
College of Education  
43 Norman Hall  
Gainesville, FL 32611  
(904) 392-0755/0701

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$90,000 Local: \$8,893 Total: \$98,893

### OBJECTIVES OR PURPOSES

The purposes of this project is to research and develop self-instructional materials for changing attitudes and procedures of educators and administrators in regard to integrating handicapped students into vocational education programs. The specific objectives are as follows: 1) To develop five booklets describing handicapped students in regular vocational education classes, 2) To disseminate the final products to vocational and teacher administrators, 3) To establish a statewide advisory committee to assist in the development and dissemination of the project materials, 4) To evaluate the project.

### PROCEDURE OR APPROACH

1st stage - To conduct a state needs assessment of vocational educators concerning the mainstreaming of handicapped. To be done by analyzing previous vocational education workshops, interviewing vocational educators, conducting review of literature, establishing a state steering committee for direction, and finalizing the "Needs Assessment Inventory" for administration.

2nd stage - Drafting of booklets, field testing and printing for dissemination to vocational educators and administrators in the State of Florida.

### EXPECTED CONTRIBUTION TO EDUCATION

Products to be developed and disseminated: 1) Booklet - "Integration of Handicapped Students into the Regular Vocational Education Program." 2) Booklet - "Vocational and Educational Characteristics of the Handicapped Learner." 3) Booklet - "Identification and Placement of the Handicapped Learner in a Vocational Education Setting." 4) Architectural Considerations and/or Modifications in the Design and Use of the Instructional Setting." 5) Administrative Considerations for the Special Needs Learner in a Vocational Education Setting." Products to be delivered to the government: (1-5) five printed booklets, 6) Product evaluation summaries, 7) Product dissemination summaries, 8) Final Report, 9) Project consultants report, 10) Bibliography. Products 1-5 disseminated to 67 which includes 67 superintendents, 67 vocational education supervisors, 670 vocational education teachers work with approximately 67,000 students of which 15,280 are minority, and 20,040 are classified as handicapped.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60180 GRANT NUMBER: G007604316

PROJECT TITLE : Vocational and Bilingual Education Curriculum Development:  
A Cooperative Effort

PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Ronald D. Todd  
Department of Technology and Industrial Education  
School of Education  
34 Stuyvesant St., Rm. 309  
New York, NY 10003  
(212) 598-3357

GRANT PERIOD : September 1, 1976 to February 28, 1978

FUNDING LEVEL : Federal: \$119,991 Local: \$17,913 Total: \$137,940

### OBJECTIVES OR PURPOSES

The overarching purpose of this project is to develop a prototypic model that will provide procedures for modifying and adapting existing vocational curriculum materials for use with students of limited English speaking ability.

1. To develop vocational curriculum materials for use with students of limited English speaking ability (specifically Hispanic and Haitian) by modifying existing curriculum materials.
2. To document the process used in developing bilingual vocational curriculum in order to generate a model and procedures for use in subsequent modification/development efforts.
3. To design, produce and disseminate a Modular Procedural Guide that provides specific steps, possible formats, examples, criteria, and decision making processes for use by bilingual and vocational curriculum specialists in generating needed bilingual vocational curriculum materials.

### PROCEDURE OR APPROACH

The procedures for materials modification include: 1) the establishing of a resource talent pool of potential participants in the areas of bilingual, vocational and curriculum development, 2) making a needs assessment to determine program and student needs, 3) determining program and student objectives, 4) identifying available curriculum materials, 5) applying product assessment criteria, 6) matching selected materials and objectives, 7) modifying existing materials, 8) field testing materials and 9) revising materials and procedures

### EXPECTED CONTRIBUTION TO EDUCATION

There are several features of this proposed Procedural Model Project that underscore its contribution to education. In brief they include: 1) utilizing presently available curriculum resources and the talents of practitioners in vocational and bilingual education, and 2) utilizing models and procedural guides to facilitate further curriculum development.

Of major significance are the procedures that will be developed because of their transferability to new areas. These procedures help to clarify, for new and experienced practitioners, what is to be accomplished, what information is needed to make the required decisions, who is involved in that decision making, and what is to be the output form of those decisions.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60184

GRANT NUMBER: G007604416

PROJECT TITLE : Program Evaluation and Planning: Evaluatin Current Vocational Programs and Identifying Handicapped Students and Their Vocational Needs for 1977-1982

PROJECT DIRECTOR AND ORGANIZATION : Dr. Lloyd W. Tindall, Program Associate  
Board of Regents--University of Wisconsin  
Center for Studies in Vocational and Technical Education  
750 University Ave., Rm. 446  
Madison, Wisconsin 53706  
(608) 263-3415

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$169,402 Local: \$8,470 Total: \$177,872

### OBJECTIVES OR PURPOSES

The purpose of the project is to formulate goals and procedures for analyzing, revising, and developing vocational education programs for the handicapped in Wisconsin's sixteen VTAE districts during 1977-1982. The objectives are to (1) evaluate selected VTAE projects funded under the 1968 Vocational Amendments to find successful techniques; (2) develop criteria and procedures for the identification of the handicapped students who will be eligible for VTAE training in the 1977-1982 time period; (3) develop a report containing an analysis of barriers in the Wisconsin VTAE schools which prevent the handicapped from enrolling in or completing vocational training programs; (4) identify and develop a composite profile of the vocational education needs of persons tested under Wisconsin Statutes 115.81 who will be eligible for VTAE training in the 1977-1982 time period; (5) utilize the results of these objectives to formulate recommendations designed to initiate program revision and development in each Wisconsin VTAE district.

### PROCEDURE OR APPROACH

The project staff will develop instruments to determine the following data: (1) number of handicapped students in each of Wisconsin's 16 VTAE districts, age 14-20 by exceptionality; (2) their cognitive, physical, and emotional characteristics; (3) successful techniques used in 50 VTAE programs and barriers in enrollment in, and completion of, VTAE courses. A workshop of secondary and post-secondary teachers and administrators will use the above data to determine the vocational needs in each of the VTAE districts.

### EXPECTED CONTRIBUTION TO EDUCATION

The Wisconsin state educational system will benefit by the provision of a five year summary of students eligible for VTAE training in 1977-1982. Data on handicapped students by exceptionality will aid Wisconsin educational agencies in long range planning, budgeting, and organizing vocational services to the handicapped

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60193                      CONTRACT NUMBER : 300760375

PROJECT TITLE : Mainstreaming the Handicapped in Preparatory Occupational Education Programs in North Carolina

PROJECT DIRECTOR AND ORGANIZATION : Mr. James H. Hughes, Senior Research Analyst  
System Sciences, Inc.      121 S. Estes Drive  
P.O. Box 2345  
Chapel Hill, North Carolina 27514      (919)929-7116

CONTRACT PERIOD : July 1, 1976 - December 31, 1977

FUNDING LEVEL : Federal: \$48,582      Local: \$6,342      Total: \$54,924

OBJECTIVES OR PURPOSES: Recent trends in litigation and Federal and State legislation have required the assurance of equal educational opportunities for the handicapped. A key concept arising from these court actions and legislative mandates has been the "least restrictive alternative" requirement for educational placement of the handicapped. Implementation of this concept has led many educators to consider mainstreaming as a viable option in the delivery of educational services to the handicapped. The objectives of this study are to: (1) identify needs and barriers to mainstreaming as expressed by occupational educational personnel who occupy key roles with respect to its implementation; (2) investigate relationships between attitudes, identified needs and barriers to mainstreaming and occupational program area, size and location of schools; and, (3) make recommendations as to ways to overcome barriers to mainstreaming identified in this study.

PROCEDURE OR APPROACH: The overall design of the project involves a three-phase research effort. The first phase utilizes the Delphi Technique to assess needs and identify barriers of local occupational education program administrators. The final output of this procedure will provide the content base for the "Questionnaire on Mainstreaming" for use with principals and teachers. Mail survey techniques will be employed. Attitude inventories to be used in the survey of principals and teachers include the Kerlinger 7 Educational Scale and the Minnesota Teacher Attitude Inventory (MTAI). The second phase includes a survey of attitudes of principals of high schools in which occupational education programs are offered. The third phase will be an assessment of teacher attitudes toward mainstreaming of the handicapped in occupational education. Sample groups of principals, occupational education directors and teachers will be randomly selected from the population of secondary principals, vocational education teachers and directors within North Carolina. Analysis of variance procedures will be applied to the attitude scores, and individual and/or composite items from the questionnaire on mainstreaming. Additional analyses will be performed on the attitude scores of the MTAI and the "Questionnaire on Mainstreaming" responses in examining their utility in local school level needs assessment activities.

EXPECTED CONTRIBUTION TO EDUCATION: Upon completion of the project, a knowledge base of administrator, teacher, and principal attitudes toward mainstreaming the handicapped in occupational education will have been developed. The information derived should be beneficial to North Carolina occupational education programs, especially in planning and conducting pre-service and in-service teacher education programs stressing mainstreaming in occupational education. A one-day dissemination conference is planned for approximately 20 State Occupational Education personnel and five representatives from the State Division of Exceptional Children who will have major leadership responsibilities in implementing mainstreaming.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60194 CONTRACT NUMBER : 300760376

PROJECT TITLE : Vocational Education in Correctional Institutions:  
State-of-the-Art Assessment of Programs in Region IV

PROJECT DIRECTOR : Eric Rice  
AND ORGANIZATION : System Sciences, Inc 121 S. Estes Drive  
P.O. Box 2345  
Chapel Hill, N.C. 27514 919:929-7116

CONTRACT PERIOD : 1 July 1976 - 30 September 1977

FUNDING LEVEL : Federal: \$86,273 Local: \$8,121 Total: \$94,394

OBJECTIVES OR PURPOSES: The primary need addressed by this project is to construct a comprehensive, quantified description of the total picture of vocational education in HEW Region IV. To meet this overriding need, the following objectives are addressed:

1. Produce a major data/knowledge base of information about vocational education in correctional institutions, thereby filling a critical gap in the research literature on vocational education.
2. Define, describe and quantify the characteristics of vocational education provided in all Region IV public correctional institutions--adult and juvenile.
3. Sharply delineate those issues which require resolution in order to more adequately serve the target population.
4. Describe and characterize typical organizational arrangements for vocational education programs in Southeastern correctional institutions.
5. ~~Illustrate innovative procedures/techniques/practices found in the target~~  
institutions that have potential for transportability.
6. Generate recommendations which address the question of how vocational education in correctional institutions can be made more effective.

PROCEDURE OR APPROACH: A survey of all public correctional institutions, adult and juvenile, is being conducted using a combination mail questionnaire, phone follow-up and site visit information gathering procedure. Data accessed in the survey includes information about the types of programs offered, the populations served, the agencies involved, the relative success of these efforts, and the overall training needs for vocational education in Southeastern correctional institutions.

EXPECTED CONTRIBUTION TO EDUCATION: The results of this investigation will constitute the beginnings of a data base on vocational education in correctional institutions. Such data will serve as the information base for the generation of recommendations relative to policy and program development/innovation as well as permit a more in-depth analysis/evaluation of the current situation. Further, this information will be disseminated through the proposed Information Seminar and Popular Monograph, each prepared at the conclusion of the activity. Such a state-of-the-art assessment is a critical first step in a long range program to meet the needs of this target population.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60217 GRANT NUMBER: G007604317

PROJECT TITLE: A Study of Vocational Education in Ohio Correctional Institutions

PROJECT DIRECTOR AND ORGANIZATION: Mr. Robert E. Abram, Specialist  
The Center for Vocational Education  
The Ohio State University  
1960 Kenny Road  
Columbus, Ohio 43210  
(614) 486-3655

GRANT PERIOD: July 1, 1976 - December 31, 1977

FUNDING LEVEL: Federal: 77,359 Local: 809 Total: \$78,168

### OBJECTIVES OR PURPOSES:

Vocational education programs have been established for incarcerated adults and youth on the assumption that they help inmates obtain employment upon release or motivate them toward further education to obtain vocational skills. However, this assumption has never been tested in Ohio. A follow up and planning study will be conducted to:

1. Obtain evaluative data on program operations in six Ohio institutions.
2. Compare institutional programs with existing standards for vocational education.
3. Determine the use of vocational training by former students who have returned to the community.
4. Develop recommendations that will impact improved education for students.

### PROCEDURE OR APPROACH

An assessment of current programming will be conducted at two adult and four youth institutions. Data will be collected by means of interview with key program personnel and systematic observations of facilities and equipment. Mail and telephone follow-up of a sample of program participants will focus on post release employment and/or educational experiences. Findings will be synthesized and recommendations developed for program improvement.

### EXPECTED CONTRIBUTION TO EDUCATION

The end products will consist of three reports: 1) A program assessment report presenting comparisons between current program quality and desired program standards or guidelines. Discrepancies and probable causes will be noted and described; 2) A report of the follow-up of program impact on released participants; 3) Final report synthesizing results of program assessment and follow-up and developing feasible recommendations for improvement of vocational education in Ohio's correctional institutions.



## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60220

GRANT NUMBER: G007604417

PROJECT TITLE: A National Study of Vocational Education in Corrections

PROJECT DIRECTOR Mr. Charles Whitson, Specialist  
AND ORGANIZATION: The Center for Vocational Education  
1960 Kenny Road  
Columbus, Ohio 43210  
(614) 486-3655

GRANT PERIOD: July 1, 1976 - December 31, 1977

FUNDING LEVEL: Federal: \$200,000 Local: \$2,179 Total: \$202,179

### OBJECTIVES OR PURPOSES

No study of vocational education in corrections has been made that addresses the key questions of needs, problems, and issues relative to fair, professional standards. This study will be conducted to: 1) Describe the state-of-the-art as reflected in contemporary literature and documents, 2) Identify and synthesize a set of standards by which vocational education programs, operations, and outcomes may be evaluated, 3) Survey nationally all vocational education programs in corrections, 4) Study in-depth selected programs with particular emphasis on how well the programs meet the developed standards, 5) Prepare a list of recommendations that are in concert with the identified needs, problems and issues.

### PROCEDURE OR APPROACH

A review and synthesis of the literature will be performed by researching various computerized document bases, identifying pertinent sources, and obtaining documents. From this research will come tentative standards for vocational education which will be adapted by a panel of expert consultants working through a modified delphi technique to arrive at usable standards within correctional programs. Questionnaires will be mailed to all correctional systems in the nation requesting information on vocational programs. Site visitations will be made to a sample of correctional institutions to validate survey results and assess the applicability of the developed standards. The project will be assisted by an advisory committee established for final review of the standards and project outcomes.

### EXPECTED CONTRIBUTION TO EDUCATION

The five specific products of this project will provide a considerable base of information for future planning and development of vocational education in corrections. The final products to be produced are: 1) Review and synthesis of the literature of vocational education in corrections; 2) Survey of vocational education in corrections; 3) Standards for vocational education in corrections; 4) Report of site visits comparing programs to standards, 5) Final report containing recommendations for future directions of vocational education for offenders.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60224 GRANT NUMBER: G007604353

PROJECT TITLE : Development of a Plan to Provide Vocational Education Services to Youth under the Custody of the Massachusetts Department of Youth Services

PROJECT DIRECTOR AND ORGANIZATION : Dr. Ronald L. Nuttall, Director  
Laboratory for Statistical and Policy Research  
Trustees of Boston College  
McGuinn 508  
Chestnut Hill, MA 02167  
(617) 969-0100 x2338

GRANT PERIOD : July 1, 1976 to March 30, 1977

FUNDING LEVEL : Federal: \$30,014 Local: \$1,501 Total: \$31,515

### OBJECTIVES OR PURPOSES

The project will assess vocational education services currently available to youth under the custody of the Massachusetts Department of Youth Services, and develop a plan for providing such services via pilot vocational programs. Specific objectives are: (1) Describe current vocational education services available for DYS youth and their relationship with academic components of DYS educational system; (2) Describe characteristics of youths under DYS custody; (3) Assess need for vocational education programs for DYS youth; (4) Assess feasibility and acceptability of various alternatives for providing vocational education services to DYS youth; (5) Assess existing and potential funding sources for vocational education; (6) Develop specific program proposals for pilot vocational education programs; (7) Make recommendations concerning the continued development of vocational education for DYS clients.

### PROCEDURE OR APPROACH

The project will consist of two phases. Phase I will involve collection and analysis of data relating to current vocational education services available to DYS clients, and the need for expanded services. Phase II will involve the development of recommendations and proposals for pilot vocational education programs for DYS clients. Phase I will be accomplished by means of (1) analysis of relevant documents; (2) in-depth interviews; and (3) a mailed questionnaire. Phase II will be achieved through (1) the use of data obtained in Phase I; (2) review of relevant literature; (3) study of exemplar programs; (4) analysis of Phase I results by an advisory committee; and (5) projections of the need for workers in various occupations.

### EXPECTED CONTRIBUTION TO EDUCATION

End products will be: (1) a report of current provisions for vocational education for DYS clients and the perceived need for expanded services; (2) two proposals for pilot vocational education projects for DYS clients; (3) recommendations for continued upgrading of DYS vocational education services. The DYS serves approximately 2500 juvenile offenders from 7 to 21 who need more extensive rehabilitation than probation affords.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60228      GRANT NUMBER: G007604318

PROJECT TITLE : Bilingual Metric Education Modules for Postsecondary and Adult Vocational Education

PROJECT DIRECTOR AND ORGANIZATION : Dr. Mary L. Ellis, President  
Ellis Associates, Inc.  
P.O. Box 466  
College Park, MD 20740  
(301) 864-7600

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$112,626 Local: \$1,126 Total: \$113,752

### OBJECTIVES OR PURPOSES

The primary objective is to ensure that vocational education students with limited English-speaking ability are equipped with the same baseline understanding of metric measurement applications in employment and in consumer and domestic activity as their English-speaking peers.

The secondary objective is language development and reinforcement.

### PROCEDURE OR APPROACH

The following procedures will be utilized: 1) review existing metric education materials; 2) develop basic metric concepts; 3) select occupational clusters and perform occupational analyses; 4) develop consumer application components; 5) prepare materials in bilingual (English/Spanish) format; 6) field test modules in two sites utilizing postsecondary and adult classes; 7) revise modules as appropriate based on teacher and student evaluations; 8) print final modules in looseleaf format; 9) distribute modules to agencies and individuals best equipped to disseminate information on the modules.

### EXPECTED CONTRIBUTION TO EDUCATION

Two sets of modules (one for Business and Office Education, one for Trade and Industrial Education) will be developed which include both consumer and occupational applications representative of those found in various jobs.

The metric core (first 5 modules) will be applicable to all vocational education areas at the postsecondary and adult level. The metric core can be used as a mini-course or integrated into existing vocational education classes.

With the exception of inexpensive metric measurement tools, the modules contain all materials needed for preparation and presentation. In addition to bilingual classes, these modules may be used in English-speaking classes or Spanish-speaking classes.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60234

GRANT NUMBER: G007604704

PROJECT TITLE: The Development, Assessment and Dissemination of an Administrative Policy Manual for the Vocational Education of the Handicapped

PROJECT DIRECTOR AND ORGANIZATION: Dr. Alan Abeson, Associate Director of State and Local Governmental Relations  
The Council for Exceptional Children  
1920 Association Drive  
Reston, Virginia 22091 (703) 620-3660

GRANT PERIOD: September 1, 1976 to February 28, 1978

FUNDING LEVEL: Federal: 140,000 Local: 9,399 Total: 149,399

### OBJECTIVES OR PURPOSES

The purpose of this national policy research project is to develop, assess, and disseminate a local education agency(ies) focused administrative policy manual regarding the provision of appropriate vocational education services to all handicapped children.

### PROCEDURE OR APPROACH

The procedures that will be used include: (1) The development of a decision point checklist (DPCL) which is a skeleton of vocational education programming for handicapped children that will contain as many of the decisions which need to be made by administrators and policymakers in order to operate a program as possible. (2) Develop a draft manual based on the DPCL and a subsequent questionnaire for assessing policy effectiveness in approximately 15 previously identified varied "successful" vocational education programs for handicapped children. (3) Conduct regional conferences for experts and policymakers in vocational education to assess the second draft of the policy manual. (4) Implement the previously developed dissemination plan for distribution of the third and final draft of the policy manual.

### EXPECTED CONTRIBUTION TO EDUCATION

It is expected that as a result of this project, local education agency administrators and policymakers will have available to them a single manual, not presently available, that will assist them in creating or improving administrative policy that serves as the basis for delivering vocational education services to handicapped children.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60283      GRANT NUMBER: G007604051

PROJECT TITLE : Multivariate Analysis of the Bilingual Vocational Education Program

PROJECT DIRECTOR AND ORGANIZATION : Ms. Jeanne T. Landis  
Office of Institutional Research  
Los Angeles Harbor College  
1111 South Figueroa Place  
Wilmington, CA 90744  
(213) 835-0161

GRANT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$57,360 Local: \$24,703 Total: \$82,063

### OBJECTIVES OR PURPOSES

The purpose of the project is to provide validated, quantified information for implementation of a cost effective comprehensive program of instruction and services tailored to the particular educational needs of the multilingual communities as they exist.

- (1) A quantitative measure of the relative contribution of each component and combination of component of bilingual vocational education to the successful achievement of participants will be obtained through statistical analysis of 200 NLOE students' performance and progress.
- (2) An assessment model which will enable NLOE students to be counseled into placement in course levels appropriate to their linguistic skills will be developed through discriminant analysis of 1976-77 NLOE student achievement.
- (3) Attitudes toward NLOE students' performance held by instructors in the program will show a significant positive shift in the 1976-77 school year because of the validation of program effectiveness by component assessment.

### PROCEDURE OR APPROACH

Students from Samoan, Spanish, and Tagalog speaking communities will be recruited, provided career planning and enrolled in an integrated bilingual vocational skill development program. Detailed records of service and progress will be maintained for each student. Multivariate analysis will be used to assess the relative contributions to successful achievement of the services and attitudinal factors of the institution.

### EXPECTED CONTRIBUTION TO EDUCATION

A validated model which quantifies the efficacy of adapted, coordinated services in contributing to successful achievement for NLOE students will be most valuable to planning. It provides a first step in accommodation required to fulfill the obligation to equalize educational opportunity for bilingual populations.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60293 GRANT NUMBER: G007604705

PROJECT TITLE : Overcoming Barriers to Mainstreaming; A Problem-Solving Approach

PROJECT DIRECTOR AND ORGANIZATION : Dr. Peter R. Dahl, Associate Research Scientist  
American Institutes for Research--Developmental Systems  
P.O. Box 1113  
Palo Alto, CA 94302  
(415) 493-3550

GRANT PERIOD : August 1, 1976 to January 31, 1978

FUNDING LEVEL : Federal: \$97,000 Local: \$19,400 Total: \$116,400

### OBJECTIVES OR PURPOSES

The purpose of this project is to provide practically useful information to vocational educators seeking to mainstream handicapped students. Specific project objectives are: (1) to assess the barriers to mainstreaming as seen by vocational education professionals and to identify ways to prevent or overcome these barriers; (2) to prepare a guidebook, acceptable to the vocational education community, that will assist vocational educators in identifying and overcoming barriers to mainstreaming; (3) to disseminate the guidebook widely in the vocational education community; and (4) to prepare the final report so that it constitutes a valuable guide to research and development planning.

### PROCEDURES OR APPROACH

An advisory panel of vocational educators will identify significant barriers that they face in mainstreaming. Based on their recommendations and a literature review, a survey form will be developed for distribution to administrators, counselors and placement specialists to determine how they overcome barriers to mainstreaming in vocational education. Based on these data, a guidebook will be developed to help firing line vocational educators to improve their services to mainstreamed handicapped students. The guidebook will emphasize realistic solutions to practical problems faced by vocational educators.

Dissemination of the guidebook will be of concern from the start of the project; every effort will be made to secure commercial publication. In addition, professional channels--such as ERIC and professional meetings--will be used.

### EXPECTED CONTRIBUTION TO EDUCATION

The guidebook to result from the project will help vocational educators to mainstream handicapped students, thereby expanding the opportunities available to this group of citizens.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60328 GRANT NUMBER: G007604052  
PROJECT TITLE : Bilingual Bicultural Instructional Resources for  
Vocational Education/Training in Human Services  
PROJECT DIRECTOR  
AND ORGANIZATION : Dr. Michael F. Beaudoin, Director  
Bilingual Human Service Programs  
University of Maine at Orono  
Bangor Community College  
Bangor, Maine 04401  
(207) 947-0820  
GRANT PERIOD : July 1, 1976 to June 30, 1977  
FUNDING LEVEL : Federal: \$22,999 Local: \$1,150 Total: \$24,149

### OBJECTIVES OR PURPOSES

To improve educational and employment opportunities for Maine's adult French-American population, the project will research and develop bilingual, bicultural instructional resources for human service vocations in the following ways:  
(1) Design bilingual, bicultural instructional aids for use in adult education/training programs in human services; (2) Organize and implement a statewide system for the dissemination of these bilingual materials and resource people; and (3) Serve as a model for the replication of bilingual procedures and materials in other geographic areas and within other vocational education programs.

### PROCEDURE OR APPROACH

(1) Orient educational institutions and human service agencies to the project and its objectives, determine educational/training needs, and solicit their interest and participation in utilizing project resources; (2) Develop a core of 7 to 10 bilingual instructional modules in human service skill areas (eg. group counseling, crisis intervention) for use in existing and new educational programs; (3) Utilize individuals with expertise in bilingual and/or human service education to design and field test bilingual, bicultural instructional aids; and (4) "Package" project resources for replication and dissemination.

### EXPECTED CONTRIBUTION TO EDUCATION

(1) A resource development and dissemination system for bilingual vocational education materials and expertise readily available statewide; (2) Human Service agencies and their clients will benefit from job applicants and employees with increased bilingual bicultural skills.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60332      GRANT NUMBER: G007604319

PROJECT TITLE : Assessment of Needs Among Youthful Offenders Related to "Job Survival Skills," and Development of Modularized Curriculum to Meet These Needs

PROJECT DIRECTOR AND ORGANIZATION : Dr. Mark Wiederanders, Research Analyst  
State of California Department of Youth Authority  
Research Division  
714 P Street, Room 800  
Sacramento, CA 95814  
(916) 445-1143

GRANT PERIOD : July 1, 1976 to December 31, 1977

FUNDING LEVEL : Federal: \$128,640   Local: \$10,369   Total: \$139,009

### OBJECTIVES OR PURPOSES

The high unemployment rate among youth released from correctional detention is caused in large part by general attitudes, habits, and interpersonal practices which inhibit success in finding as well as keeping jobs. To strengthen these "job survival skills," objectives are to: (1) identify, using a sampling technique, real-life problems that youth are having on parole relating to job survival, and deficiencies among incarcerated youth that will likely result in similar problems on parole; (2) develop and implement a modularized "job survival skills" curriculum to address these deficiencies and problems; and (3) demonstrate significantly better job survival skills test-scores, and better job-finding and job-retention rates among a sample of those exposed to the curriculum compared to a control group.

### PROCEDURE OR APPROACH

Instruments to reveal needs in the area of "job survival skills" will be developed and administered to two samples: 100 incarcerated youthful offenders, and 100 offenders on parole. (Job survival skills involve basic attitudes, habits, and interpersonal skills which are needed to survive and be effective in all work situations.) A modularized curriculum will be developed to address these needs. The curriculum will be field-tested at one Youth Authority institution. Any improvements in scores on survival-skills tests, as well as improvements in actual employment rates on parole, will be measured against those of a control group of offenders from the same facility.

### EXPECTED CONTRIBUTION TO EDUCATION

Assuming that the field-test will demonstrate a successful job survival skills curriculum, the California Youth Authority, serving approximately 4,500 persons will implement the program system-wide. The product will be completely transportable and will hopefully be used in correctional settings throughout the United States. The ultimate hoped-for impact will be a significant improvement in employment rates and productive citizenship among ex-offenders.



## SPECIAL PROJECTS

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## SPECIAL PROJECTS

### Background

Under the provisions of Part C of the Vocational Educational Amendments of 1968 and the rules and regulations which give interpretation to this law, the Commissioner of Education may make grants and contracts for programs or projects of national significance from funds derived from a pro rata share of allotments to all of the States affected by the significance of the program or project.

Such authority permits the Commissioner to use funds appropriated under the authority of Section 131(a) of Part C of the Act to support special project efforts of national implication. Although the authority permits the total usurpation of such funds, the Commissioner has elected to use but a modest portion of his discretionary funds in this manner. In fiscal year 1975 the Commissioner invested \$1,517,127 in special projects out of an appropriation of \$9,000,000. This amount - 17 percent of the discretionary research funds - was not too dissimilar from the \$2,031,079 invested in special projects in fiscal year 1976 when the Commissioner's vocational education research funds amounted to \$11,202,975, including a special authorization for the transition quarter. In terms of percentages, the Commissioner used but 18 percent of his funds for special projects with the balance of the obligated funds accruing to the various States and outlying areas for investment in vocational education research and development.

As might be imagined, the Office of Education is confronted with a range of unique needs in the area of vocational education. In some instances, such needs may be identified by the National Advisory Council on Vocational Education, i.e., recommendations which the Council might make. Or they might come from a source as diverse as the General Accounting Office when the Comptroller General, in his report to the Congress on the role of Federal assistance for vocational education, made specific recommendations which had research implications and which the Commissioner agreed to honor. In other instances, research requirements stem from legislative requirements (e.g., elimination of sex-role stereotyping or bias) or program requirements as identified by staff members within the Office of Education, State Departments of Education, and local education agencies.

When the need arises to procure a specific product or service, an effort is made to get what is needed, where it is needed, when

it is needed, to the best economic advantage of the government, within legal and administrative requirements. Although procurements may be made through advertising or negotiation, purchases are generally made by formally advertising for bids in the Commerce Business Daily. The Contracting Officer determines the method of procurement to be utilized and the appropriate legal authority for such method. Whenever possible, however, the vocational education extramural research program encourages competition in the procurement process on the basis that it improves quality, expands innovation, helps assure the reasonableness of cost, greater latitude of choice, and, generally speaking, a greater body of knowledge.

### Proposal Supported

In fiscal year 1976, the Office of Education supported 24 project efforts, one-third of which were with profit organizations as contrasted with colleges and universities which accounted for slightly more than one-fifth (21 percent) of the awards. As can be seen in Table 1 below, educational associations, junior or community colleges, and State agencies received but one award each.

Table 1. Contract or Interagency Transactions by Type of Institution

Type of Institution	Number	Percent
Colleges or Universities	5	21
Non-Profit Organizations	4	17
Profit Organizations	8	33
Associations	1	4
Junior/Community Colleges	1	4
State Agencies	1	4
Federal Agencies	4 <u>1/</u>	17
Total	24	100

1/ Three (3) different projects are provided for in one (1) of the assignments of funds.

When the awards are analyzed in terms of the Federal funds which went to the various types of institutions or organizations, a different pattern emerges. As can be seen in Table 2, colleges and universities received 36 percent of the Federal funds although they accounted for only 21 percent of the awards. By contrast, profit organizations received 19 percent of the Federal funds although they accounted for 33 percent of the projects supported. The average size of the awards made to colleges and universities - \$147,531 - was more than three times

greater than the average size of awards for profit organizations (\$48,833).

Table 2. Total, Percent, and Average Size of Contract/Interagency Transfer of Funds Awards by Type of Institution

Type	Total	Percent	Average Size
Colleges and Universities	\$ 737,756	36	\$147,551
Non-Profit Organizations	341,830	17	85,458
Profit Organizations	390,665	19	48,833
Associations	214,921	11	-
Junior/Community Colleges	100,000	5	-
State Agencies	24,910	1	-
Federal Agencies	220,997	11	110,498
Total	\$2,031,079	100	\$ 92,323

The overall average size of the awards, \$92,323, provides another base for comparing project size and further highlights the fact that colleges and universities had, on the average, much larger awards than did their counterparts.

When the awards are examined in terms of the type of proposal solicitation that was employed, the following relationships emerge as shown in Table 3.

Table 3. Type of Proposal Solicitation by Number of Projects, Federal Investment and Percent.

Type of Procurement	Number	Federal Investment	Percent
Request for Proposals	4	634,991	31
Small Business Adm. (8A)	3	208,366	10
Sole Source	11	895,957	44
Interagency Transfer	4	220,997	11
Cost overrun for ongoing project	2	71,768	4
Total	24	\$2,031,079	100

Nearly one-third of the awards were made via Request for Proposals (REP's) in which the Office of Education announced its intent to procure selected products in the Commerce Business Daily. One of the four awards resulted from a prior year competition which had a three-year duration. A slightly larger share of funds (44 percent) used for some sole source awards as justified by the unique capabilities of the organization. Intergovernment transfer of funds, by contrast, accounted for more than one-tenth (11 percent) of the funds expended on special projects. A somewhat similar amount of funds (10 percent) was used in support of projects with small educational R&D firms identified by the Small Business Administration.

Programmatically, the projects focused on six broad areas of activity as shown in Table 4 below.

Table 4. Subject Area of Project by Number of Projects, Federal Investment and Percent of Federal Investment.

Subject Area	Number	Federal Investment	Percent
Minority Business Education	5	\$ 330,399	16
Program Mgr., Adm., Evaluation	10	898,104	44
Data Collection /Analysis	2	227,404	11
Curriculum Development/Training	4	266,187	13
Technical Assistance to States	1	37,000	2
Bibliographic materials	2	271,985	14
Total	24	\$2,031,079	100

It is significant to note that nearly one-third of a million dollars is being spent on minority business education. Some of the projects are being conducted in correctional institutions while one is focused on secondary public schools. Program management, administration, and analysis, however, was given emphasis as shown by the number of projects in this subject area and the funds expended. This category of projects ranged from the development of a model for determining the added cost of vocational education to an evaluation of the State Management Evaluation Reviews which the Bureau of Occupational and Adult Education is conducting in the various States.

Some of the projects had implications for all levels of education, i.e., secondary, postsecondary, and adult. Table 5 depicts the evenness of the project thrust across the various levels. Part of the explanation for the similarity of project thrust lies in the fact that many of the projects have implications for all levels of education. AIM/ARM - the abstracts on instructional and research materials - has implications for all levels of education as might Project Baseline or a national study of State and outlying area statutes that impact on the use of proprietary schools for training vocational students in the public school sector.

Table 5. Level(s) of Education Implication by Number of Projects Supported and Percent.

Level	Number	Percent
Secondary	18	35
Postsecondary	16	31
Adult	17	34
Total	51	100

When a relationship is made between the subject area of the various projects and level(s) of education, another set of data emerge as shown in Table 6 below:

Table 6. Subject Area of Projects by Level(s) of Education Implication and Number of Projects

Subject Area	Secondary	Postsecondary	Adult
Minority Business Education	1	-	4
Program Mgt., Adm., Evaluation	9	8	6
Data Collection/Analysis	2	2	2
Curriculum Development/Training	3	3	2
Technical Assistance to States	1	1	1
Bibliographic Materials	2	2	2
Total	18	16	17

Projects that impinge on program management, administration and evaluation at the secondary, postsecondary, and adult levels are numerically most significant.

#### Summary

Additional analyses could be made of the special projects (e.g., provision for evaluation, expected end-products, ethnic populations to be served) but enough has been stated to provide an insight into these projects. A review of the project abstracts will provide detailed information on the projects and their specific objectives, procedures for achieving the objectives, and expected contribution to education. Other identifying information (e.g., duration, funding level, contractor, project director) provide additional insight into the projects and the contractors.

Because of the specificity which has been involved in the preparation of the work statements against which a contract was given, the Office of Education is expected to receive some clearly identified deliverables which will impact on vocational education throughout the Nation.

Unlike a grant by the Office of Education, a contract has a number of legal provisions which require performance on the part of the contractor. As a result, there is some assurance of quality provided for in the contract. When this element is coupled with a clearly identified need on the part of the Office of Education, there is greater assurance that the end products of the various efforts will be significant in bringing about improvements in the range and quality of vocational education throughout the Nation.

## PROJECT ABSTRACT

PROJECT NUMBER : L98AH60002

CONTRACT NUMBER: 300760085

PROJECT TITLE : Career Awareness and Minority Business Enterprise and Management, High School Level

PROJECT DIRECTOR AND ORGANIZATION : Mr Robert A. Turpin, Jr. - Project Director  
Charisma Enterprises, Ltd.  
1108 East Main Street, Suite 810  
Richmond, Virginia 23219  
804/649-7611

CONTRACT PERIOD : April 5, 1976 - April 4, 1977

FUNDING LEVEL : Federal: \$73,402 Local: \$5,131 Total: \$78,533

OBJECTIVES OR PURPOSES: The primary objectives of the project are to:

- 1) create an innovative curriculum at the high school level for students in the Richmond Public Schools which will enhance their awareness and appreciation of business enterprise;
- 2) achieve a level of student awareness of business enterprise which will encourage their consideration of business ownership as a viable career option;
- 3) introduce to the students the primary forms of business ownership and basic management principles; and,
- 4) present to the students successful business persons to whom they can look as role models.

PROCEDURE OR APPROACH: To accomplish the stated objectives of the project, Charisma formed a curriculum team composed of members of its own staff, personnel from the school system, and persons from the local business community. After orientation of the team and subsequent agreement on project goals, the Charisma staff assumed primary responsibility for researching data and developing the curriculum. The team selects the target school, reviews curriculum draft, approves curriculum, oversees implementation, monitors, and evaluates classroom presentation. Business persons, especially minorities, and field trips are used to enhance classroom instruction.

EXPECTED CONTRIBUTION TO EDUCATION: As a result of the project, Richmond Public Schools will have a career awareness curriculum in business enterprise and management to offer to 9606 high school students of whom 78% are Black. The curriculum will have valuable utility nationally at the secondary level especially where there are significant numbers of minority students.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60028                      CONTRACT NUMBER: 300-75-0141

PROJECT TITLE : AIM/ARM: Abstracts of Instructional and Research  
Materials in Vocational and Technical Education

PROJECT DIRECTOR : Dr. Joel H. Magisos, Associate Director  
AND ORGANIZATION : The Center for Vocational Education  
The Ohio State University  
1960 Kenny Road  
Columbus, Ohio 43210 (614) 486-3655

CONTRACT PERIOD : February 29, 1976 to February 28, 1977

FUNDING LEVEL : Federal: \$234,471 Local: \$3,917 Total: \$238,388

### OBJECTIVES OR PURPOSES

The purpose of the project is to achieve effective use of research reports, program descriptions, and instructional materials by educational researchers, developers, practitioners, and others who work to improve and extend vocational and technical education. The project's objectives are to prepare information about completed and ongoing research and curriculum development for AIM/ARM, a nationally distributed abstract publication; conduct searches and prepare interpretative papers for the sponsor; and link to other elements of the national information network. In addition, the project is to develop a report of projects funded by the Division of Research and Demonstration (USOE/BOAE).

### PROCEDURE OR APPROACH

The project will link to the information network for vocational education; prepare material for computer input to AIM/ARM; prepare, reproduce, and distribute AIM/ARM; conduct searches for USOE/BOAE; prepare interpretative papers and bibliographies; input material to the Smithsonian Science Information Exchange and ERIC; analyze, synthesize, and disseminate information about manpower information systems and the recent assessment of vocational education R&D. Proposals and supplemental information about funded projects will be abstracted for inclusion in the special report on funded projects.

### EXPECTED CONTRIBUTION TO EDUCATION

Researchers and curriculum developers will be enabled to keep abreast of completed and ongoing work. Educational policy and decision makers will be enabled to find research-based solutions to critical problems. Educational practitioners will be enabled to access available instructional materials. An available record of funded projects will exist.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60354 CONTRACT NUMBER: 300760083  
PROJECT TITLE : Proposal to Develop a Minority Enterprise Program for the Fashion Industry  
PROJECT DIRECTOR AND ORGANIZATION : Mr. Marvin Feldman, President  
Fashion Institute of Technology  
227 West 27th St.  
New York, N.Y. 10001  
(212) 760-7675  
CONTRACT PERIOD : April 19, 1976 to April 18, 1977  
FUNDING LEVEL : Federal: \$100,000 Local: \$98,500 Total: \$198,500

### OBJECTIVES OR PURPOSES

The objective of the project is to demonstrate whether successful entry into the fashion industry as business owners by minorities can be accomplished by an intensive management training program in two basic areas:

- (1) On specific areas of administration and operation of a fashion industry business firm, and
- (2) Through practical knowhow and wisdom provided to the minorities by successful representatives from the fashion industry and the teaching staff of F.I.T.

### PROCEDURE OR APPROACH

- (1) Special seminars on 8 different major management topics.
- (2) One-to-one counseling.
- (3) Provision of technical assistance to designers including use of showroo space and work space.
- (4) Exposure to leading representatives from the fashion industry including buyers, designers, production and union experts.

### EXPECTED CONTRIBUTION TO EDUCATION

Demonstrate the potential use of vocational and other types of educational institutions coupled with assistance from industry as a practical resource to assist minorities in entering a highly selective and competitive industr

## PROJECT ABSTRACT

PROJECT NUMBER : L98AH60355

CONTRACT NUMBER: OEC-O-72-0414

PROJECT TITLE : Project Baseline: A National Study of Vocational Education

PROJECT DIRECTOR

AND ORGANIZATION : Dr. Arthur M. Lee, Director of Project Baseline  
Northern Arizona University  
P.O. Box 15015  
Flagstaff, Arizona 86011  
(602) 523-3439

CONTRACT PERIOD : April 1, 1976 - March 31, 1977

FUNDING LEVEL : Federal: \$188,407 Local: \$300 Total: \$188,707

### OBJECTIVES OR PURPOSES

To present for the fifth year a comprehensive report and analysis of Vocational Education in all fifty States; the District of Columbia, and Puerto Rico. To extend the data base established over the past four years, to identify and measure changes over an additional one year period, and to compare and measure Vocational Education from FY 1971 - FY 1975, to interpret the data reported in light of current needs, and to make recommendations for the improvement and strengthening of Vocational Education.

### PROCEDURE OR APPROACH

Collection, tabulation, analysis, comparison and interpretation of data available from the States will be continued. The results will be published in a Fifth Volume of Baseline's National Report, Learning A Living Across The Nation. Data are gathered from each State, displayed in a series of annual and longitudinal tables returned to the States for confirmation, correction, or updating and published with narrative comments, conclusions, and recommendations.

### EXPECTED CONTRIBUTION TO EDUCATION

Baseline reports are the major source of information for State planning, comparative analysis, and program management in a large number of States. They are the basis of many provisions in Congressional legislation affecting education. They are used as texts, required reading, and major reference materials in colleges and universities throughout the United States. They are used by business and industry for trend analysis in educational equipment marketing. They are used by USOE, NIE, and NCES in developing programs, priorities, and legislative positions. Each annual volume enlarges the areas of National, State, and local contribution, and Volume 5 is expected to continue this trend.

PROJECT NUMBER: 498AH60356

CONTRACT NUMBER: 300760410

PROJECT TITLE: A MODEL FOR DETERMINING THE ADDED COST OF VOCATIONAL EDUCATION

PROJECT DIRECTOR Dr. Kern Alexander, Director  
AND ORGANIZATION: Institute for Educational Finance  
University of Florida  
1212 S.W. 5th Avenue, Apt. #6  
Gainesville, FL 32601 (904) 392-1481

CONTRACT PERIOD: August 15, 1976 through August 14, 1977

FUNDING LEVEL: Federal: \$197,563 Local: \$22,627 Total: \$220,190

OBJECTIVES OR PURPOSES:

Three primary objectives guide the thrusts of this project. Although delimited in terms of their technical aspects by RFP 76-29, the objectives are as follows:

- (1) To develop a model for calculating the excess costs on a full-time-equivalent per student basis of vocational-technical education courses and programs offered at public, secondary and post-secondary institutions.
- (2) To field-test the model developed that determines excess cost of vocational-technical education courses and programs in a sample of school districts and post-secondary schools.
- (3) To prepare a USER'S MANUAL of instruction that describes and illustrates how the model can be applied to (a) determine excess cost elements and (b) compare excess costs to basic program costs.

PROCEDURE OR APPROACH:

Model development activities are guided by the data capabilities and process characteristics sections of RFP 75-29. Generally, standard terminology and procedures provided in various U.S.G.E. Handbooks will be utilized to model the relationships between pupil accounting, cost accounting, educational programming, and management locations.

Data from a sample of 9 or 10 school districts and 9 or 10 post-secondary institutions in 4 or more states will be utilized to test and refine the cost model.

Based upon the field-test results the model will be fully explicated in a USER'S MANUAL.

EXPECTED CONTRIBUTION TO EDUCATION:

The excess cost model will enable a more careful review of vocational-technical program costs at the local school districts, the state education agencies, and the U.S. Office of Education. Potential application of the USER'S MANUAL includes: approximately 17,000 public school districts and approximately 1,200 post-secondary institutions offering vocational-technical training, and 50 state departments of education.

PROJECT NUMBER : 498AH60364.

Contract Number: 300760364

PROJECT TITLE : Develop a Model to Recruit and Retrain Women Teachers to Teach in Male Intensive Occupational Programs

PROJECT DIRECTOR  
AND ORGANIZATION : Ms. Roslyn D. Kane, President  
Rj Associates, Inc.  
1018 Wilson Blvd  
Arlington, VA 22209 (703) 524-3360

CONTRACT PERIOD : July 1, 1976 through June 30, 1977

FUNDING LEVEL : Federal: \$101,314 Local: \$6,400 Total: \$107,714

#### OBJECTIVES OR PURPOSES

There is a continuing absence of women teachers in male-intensive occupations. Young women who might consider careers in such programs are inhibited in seeking enrollment because there are no successful role models for them to emulate. This current need for female role models comes at a time when there are teacher shortages in some of these occupations and teacher surpluses generally. These three problems form the basis for this project to develop a model for the recruitment and retraining of women teachers to teach in male intensive occupational programs.

#### PROCEDURE OR APPROACH

The project involves three major tasks: Task A-- identification of data on teacher supply and demand in male-intensive occupational programs for the 50 states and an analysis of certification and credentialing problems and means to accomodate them; Task B-- Development of a model to recruit and retrain women teachers and skilled women who are working in male intensive occupations in industry to teach in secondary level male-intensive programs; Task C-- development of two course outlines of study and training programs for re-training women teachers in two occupational categories, one in Industrial Arts and the other in Trade and Industrial areas.

#### EXPECTED CONTRIEUTION TO EDUCATION

The program offers an immediate and pragmatic solution to emerging employment problems of women teachers. It promises to eventually place women in positions in which they can serve as positive role models for women students selecting training in secondary schools for male intensive occupations.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60365                      CONTRACT NUMBER: 300760393

PROJECT TITLE : A National Study of State and Outlying Area Statutes Influencing Vocational Education that Possibly Prevent Public Schools from Using Private Training Resources

PROJECT DIRECTOR AND ORGANIZATION : Dr. Joan C. Baratz, Staff Director  
Education Policy Research Institute of the  
Educational Testing Service  
1527 New Hampshire Avenue, NW  
Washington, D.C. 20036  
(202) 234-3500

CONTRACT PERIOD : July 1, 1976 to June 30, 1977

FUNDING LEVEL : Federal: \$100,643 Local: \$2,115 Total: \$102,758

### OBJECTIVES OR PURPOSES

This project seeks to identify barriers that limit the use of private training resources for public instruction in vocational education. The purpose of the project is three fold: (1) To identify federal and state statutes, administrative procedures and attitudinal barriers that limit the use of private training resources; (2) To disseminate the results of the study for use in development of plans to remove such obstacles; and (3) To seek out successful examples of flexible arrangements for use by states and local education agencies in increasing flexibility in vocational education delivery systems.

### PROCEDURE OR APPROACH

Several procedures will be used to carry out this project: a literature search; the identification of exemplary programs; and, a review of federal and state statutes, administrative regulations regarding vocational education and licensing regulations regarding proprietary schools. Additionally, questionnaires will be developed, distributed and analyzed to identify those legal, administrative and attitudinal barriers that limit the use of private training resources. Questionnaires will be distributed to the state directors of vocational education, the state officials responsible for community colleges and adult education, members of the state advisory committee, selected local officials, individuals with knowledge of state licensing of private educational institutions, selected local officials, and individuals responsible for interpreting federal vocational education legislation. After the data has been gathered and analyzed a series of five regional conferences will be held to disseminate the findings of our project to state and local officials.

### EXPECTED CONTRIBUTION TO EDUCATION

Since private training sources may provide training at a lesser cost or may provide equipment or services not available in public institutions effective use of private schools can make an important contribution in meeting federal vocational education goals and objectives. The major goal of this research undertaking is to provide education policymakers at the state and federal levels with the necessary information to allow development of legislation and programs that facilitate the use of proprietary schools in the provision of vocational education.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60366

CONTRACT NUMBER: 300760096

PROJECT TITLE : Identifying and Validating Essential Competencies Needed for Entry and Advancement in Major Agriculture and Agribusiness Occupations.

PROJECT DIRECTOR AND ORGANIZATION : Dr. David R. McClay, President  
Instructional Consulting and Research Associates, Inc.  
732 Holmes Street  
State College, PA 16801 (814) 237-3119

CONTRACT PERIOD : May 17, 1976 to November 16, 1977

FUNDING LEVEL : Federal: \$72,090 Local: \$3,070 Total: \$75,160

### OBJECTIVES OR PURPOSES

This project provides a director to coordinate the completion of the work of Agricultural Education leaders in 45 universities and colleges over the nation involved in the National Agriculture/Agribusiness Occupations Competency Study. Specific objectives of this national study are:

- (1) To identify the agricultural occupations at mid-management and below entry levels in the seven broad instructional areas: production, supplies and services, products, forestry, ornamental horticulture, mechanics, and resources.
- (2) To determine the essential agriculture/agribusiness competencies needed in the occupations identified for entry employment and advancement.
- (3) To validate nationally the competencies determined in (2) above by persons employed in the occupation or by their work supervisor.
- (4) To assemble, publish and disseminate to all states a final report including all occupations identified and the competencies validated under each occupation.

### PROCEDURE OR APPROACH

All institutions are following the below procedural steps in this study:

- (1) Skilled, technical, or mid-management occupations under the seven instructional areas in agriculture/agribusiness which employ the most workers are identified and selected for study.
- (2) Essential agriculture/agribusiness competencies needed for entry employment are identified for each occupation by job and task analysis.
- (3) A local Employee-Employer Review Group (EERG) is employed in the pilot study phase to review and revise the survey questionnaire.
- (4) National validation for all competencies under each occupation is obtained from workers employed in the occupation or their work supervisors according to a 4-3-2-1 scale with 4 being "essential" and 1 "not important." Means are computed for each competency.
- (5) A final report including validated competencies for all occupations surveyed will be prepared and disseminated to all states.

### EXPECTED CONTRIBUTION TO EDUCATION

The final report will provide educators over the nation a listing of over 200 agriculture/agribusiness occupations with validated competencies for each. This information can improve the preparation of vocational teachers, and up-date vocational and technical school programs at all levels nationwide in agriculture/agribusiness occupations.



## PROJECT ABSTRACT

PROJECT NUMBER : 198AH60367 CONTRACT NUMBER: 300760098

PROJECT TITLE : Dimensions of Women's Employment in  
Nontraditional Occupations

PROJECT DIRECTOR  
AND ORGANIZATION: Ms. Georgette Semick  
Koba Associates, Inc.  
2001 S Street, N.W., Suite 302  
Washington, D.C. 20009 (202) 265-9111

CONTRACT PERIOD : April 19, 1976 -- November 18, 1976

FUNDING LEVEL : Federal: \$37,514 Local Contribution: \$1,522 Total: \$39,036

OBJECTIVES OR PURPOSES: As part of its continuing effort to provide up-to-date information and resource materials to those persons involved or interested in the changing status of women in the world of work, Koba Associates, Inc., was contracted to prepare an annotated bibliography of literature about women in non-traditional occupations. The objectives to be met in the development of this document were: 1) to focus on the experiences of individual women (their successes and failures) as they attempt to enter male dominated occupations; 2) to compile literature related to the broad issue of women in the labor force including sex stereotyping, discrimination and employment projections; and 3) to identify the literature on a wide range of potential occupations which are currently male-dominated.

PROCEDURE OR APPROACH: In order to identify and locate the relevant literature for inclusion in the bibliography staff contacted numerous women's groups, publishers, education associations, state directors of vocational education, unions and libraries. Koba then collected (or located in libraries when necessary) copies of identified books, journal/magazine articles, pamphlets, brochures, government documents, dissertations and other printed materials for review and annotation. Entries were prepared and categorized according to a predetermined format and classification system developed in consultation with potential users as well as the Office of Education Project Monitor. The final document will be indexed by author, title and subject/occupation with a section providing resources for additional information.

EXPECTED CONTRIBUTION TO EDUCATION: Intended as a reference document, the bibliography is designed for use by vocational education directors at the state level, vocational education teachers and planning personnel; women's action and employment placement groups; and employers and unions. It is intended to promote an awareness of the progress that has and has not been made with respect to the employment of women in non-traditional occupations thereby helping to increase their numbers in non-traditional occupational training programs as well as the non-traditional labor market.



## PROJECT ABSTRACT

PROJECT NUMBER: L98AH60373

CONTRACT NUMBER: 300760426

PROJECT TITLE: Training Materials on Eliminating Sex Role Stereotyping in Vocational Education

PROJECT DIRECTOR Dr. Shirley McCune,  
AND ORGANIZATION: Program Director  
Resource Center on  
Sex Roles in Education  
National Foundation for the  
Improvement of Education  
1201 16th Street, N. W.  
Washington, D. C. 20036  
(202) 833-5426

CONTRACT DURATION: October 1, 1976 through September 30, 1977

FUNDING LEVEL: Federal: \$69,097 Local: \$10,134 Total: \$79,231

### OBJECTIVES OR PURPOSES:

The purpose of the project is to develop; field test, produce and disseminate materials which can assist in the elimination of sex-role stereotyping and sex discrimination in local vocational education programs and institutions. The materials would be designed to provide vocational education personnel with: increased awareness of sex-role stereotyping and discrimination; increased capability to identify sex-role stereotyping and sex discrimination in their policies, practices and programs; and increased capability to design, deliver and evaluate quality, non-stereotyped vocational education programs.

### PROCEDURE OR APPROACH:

The project will involve five major tasks: the implementation of a needs assessment; the development of a kit of eight products; the field testing of the materials in four sites; the preparation of camera-ready copy and the coordination of the printing of 1,000 prototype copies; and the identification of key vocational education personnel and organization and the dissemination of the materials to these groups for further reproduction and distribution.

### EXPECTED CONTRIBUTION TO EDUCATION:

The end products of the project would include: a handbook for vocational education administrators; a resource booklet for vocational counselors; a resource booklet for vocational education teachers; a student vocational planning workbook and two nonstereotyped learning posters; an awareness brochure on nonstereotyped vocational education for parents; and a training manual on the use of the materials in training efforts.

The distribution of these materials in prototype form for reproduction by key vocational education personnell and organizations will facilitate their distribution throughout the field.

# PROJECT ABSTRACT

PROJECT NUMBER: 498AH60374

CONTRACT NUMBER: 300-74-0676

PROJECT TITLE: Institute for Minority Business Education

PROJECT DIRECTOR

AND ORGANIZATION: Warren K. Van Hook, Executive Director  
Institute for Minority Business Education  
School of Business and Public Administration  
Howard University - P. O. Box 748  
Washington, D. C. 20059 (202) 636-7187

CONTRACT PERIOD: September 1, 1976 through August 31, 1977

FUNDING LEVEL:	FEDERAL	LOCAL	TOTAL
Division of Research and Demonstration, Bureau of Occupation and Adult Education, U.S. Office of Education, U.S. Department of Health, Education and Welfare	\$ 52,547.00	\$15,900	68,447
Office of Minority Business Enterprise, U.S. Department of Commerce	140,000.00	-	-
	<u>\$192,547.00</u>	<u>\$15,900</u>	<u>\$208,447</u>

OBJECTIVES OR PURPOSES:

The general purposes of this program are to design, develop and implement delivery of training services which will improve the management skills of minority business owners, managers and selected consulting organizations. Specific objectives are:

1. to determine the feasibility and practical value of the unique Assessment Center Methods in training of minority managers;
2. to utilize the application of diagnostic techniques in the development of effective education and training programs; and
3. to establish an exemplary training model for widespread replication to expand and improve the management skills of minority managers across the nation.

PROCEDURES OR APPROACH:

1. Identify training and development needs of diverse client population.
2. Design specialized course offerings to meet the identified needs.
3. Conduct a series of workshops and diagnostic centers to improve necessary skills.
4. Publish various periodicals which will enhance the achievement of the stated objectives.

EXPECTED CONTRIBUTION TO EDUCATION:

The end products of this project are: some 350 persons will participate in the training and an Assessment Center Methods Manual will be produced for utilization by other training programs across the nation. The impact of the above is 350 participants who supervise an average of 5 persons = 1,750 persons directly benefit. Of the 1,750 persons, 583 persons counsel and assist 15 business clients each month for a total of 8,745 business owners per month who alternate 6 times a year for a total of 52,470 business clients benefiting indirectly. The manual and publications impact over even a larger group as over 2,500 initial readers are served monthly.

## PROJECT ABSTRACT

PROJECT NUMBER: 498AH60375

CONTRACT NUMBER: 300760438

PROJECT TITLE : "A Study of Exemplary Cooperation Between Institutions Providing Postsecondary Non-Baccalaureate Occupational Education"

ACTING PROJECT DIRECTOR : Richard E. Wilson  
AND ORGANIZATION : American Association of Community and Junior Colleges, One Dupont Circle, N. W., Suite 410 Washington, D.C. 20036 (202-293-7050)

CONTRACT PERIOD : September 15, 1976 through April 14, 1977

FUNDING LEVEL : Federal: \$214,921 Local: \$27,178 Total: \$242,099

### OBJECTIVES OR PURPOSES

Community colleges and postsecondary area vocational schools serve the public interest best when they succeed in achieving close cooperation. Some public policies and procedures facilitate such cooperation; some impede cooperation. This project seeks to:

1. Identify policies and procedures that facilitate cooperation
2. Formulate recommendations to change policies that impede cooperation
3. Disseminate widely the findings and recommendations
4. Establish a mechanism to continue cooperation between AACJC and AVA.

### PROCEDURE OR APPROACH

1. A national survey will be conducted to gather information on policies and procedures that impede or facilitate cooperation.
2. Five regional workshops, a national assembly, and publication will be used to disseminate findings and recommendations.
3. A national advisory committee for the project will evolve into a joint liaison committee at the end of the project to continue working relations between AACJC and AVA.

### EXPECTED CONTRIBUTION TO EDUCATION

Millions of students in community college occupational education programs and in postsecondary area vocational schools will be better served and millions of public dollars will be better spent by the fostering of cooperative relations at the local level between community colleges and area vocational schools.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60376                      CONTRACT NUMBER: 300760460

PROJECT TITLE : Guidelines for Non-Sexist Vocational Education Materials

PROJECT DIRECTOR AND ORGANIZATION : Ann Stefan  
Women on Words and Images, Inc.  
P.O. Box 2163  
Princeton, N.J. 08540                      (609) 921-8653

CONTRACT PERIOD : October 1, 1976 through September 30, 1977

FUNDING LEVEL : Federal: \$24,999              Local: \$2,374              Total: \$27,373

### OBJECTIVES OR PURPOSES

This is a proposal to develop and validate guidelines which will ensure that vocational materials developed under BOAE auspices are free of sex bias. The guidelines will serve a three-fold purpose:

1. to provide a guide for development of any materials resulting from BOAE contracts or grants for material development;
2. to provide a checklist for evaluation of materials developed under BOAE contracts or grants;
3. to serve as a guide for the examination of existing curricula or other materials being used in vocational education classrooms.

### PROCEDURE OR APPROACH

In order to develop the guidelines, Women on Words and Images will examine a sample of existing vocational education materials for sex bias, to identify examples. These materials will be both commercially produced and those produced with BOAE funding. Some available guidelines relating to sex bias will be examined, both from producers of vocational education materials and from representative state education departments. After development of a preliminary draft of the guidelines, they will be validated and perfected by reviewing them with nine selected recipients of BOAE funding, and with nine State Directors of Vocational Education Departments.

### EXPECTED CONTRIBUTION TO EDUCATION

The guidelines will be used as a tool for all educators to evaluate materials for sex bias. They will also be used by the developers of vocational education materials, to assist them in creating new materials which are free of sex bias. If the guidelines are followed, then vocational education materials which are non-sexist will be developed. These will encourage all vocational education students to develop to their fullest potential.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60377 CONTRACT NUMBER: 300760461

PROJECT TITLE : Minority Business Ownership and Management: A Pilot Education and Training Program for Persons in Georgia Correctional Institutions

PROJECT DIRECTOR AND ORGANIZATION : Mr. Larry Gibson  
SOUTHERN RURAL ACTION, Inc.  
1202 West Marietta St., NW  
Atlanta, GA 30318  
(404) 799-8381

CONTRACT PERIOD : October 1, 1976 to September 30, 1977

FUNDING LEVEL : Federal: \$100,000 Local: \$86,988 Total: \$186,988

### OBJECTIVES OR PURPOSES

The purpose of this project is to aid the rehabilitation process of selected minority persons in Georgia correctional institutions by providing them with vocational education and training, motivation, and other assistance essential to business ownership and management.

### PROCEDURE OR APPROACH

(1) Obtain written agreements of cooperation from appropriate correctional institutions officials; (2) Identify persons from correctional institutions/ community release centers best suited to be channeled into the program on a release time basis; (3) Design curriculum materials, instructional plan, and related procedures and materials; (4) Develop and operate plan for creating business development opportunities in the above areas for trainees who express the desire and demonstrate the potential for business ownership; (5) Conduct vocational education and training and related services as required to equip trainees with the knowledge required; (6) Develop and operate plan to create business management or business employment opportunities for trainees who cannot, or do not desire, to pursue business ownership initially; (7) Successfully negotiate arrangements with CETA and/or LEAA to provide stipends for persons selected; (8) Conduct formative and summative evaluation of the program.

### EXPECTED CONTRIBUTION TO EDUCATION

This project will demonstrate the potential for providing selected persons in correctional institutions with the knowledge and skills of vocational education necessary to pursue business ownership, business management, or business employment as part of the rehabilitation process. It will also demonstrate the potential for utilizing organizations experienced and committed to the development of small minority businesses to use their expertise in the motivation and preparation of incarcerated persons to achieve entrepreneurial skills. It will also demonstrate the prospects for broadening the career options for persons to be released from correctional institutions.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60378 CONTRACT NUMBER: 300760465  
PROJECT TITLE : Process Assessment of MERC  
PROJECT DIRECTOR AND ORGANIZATION : Dr. Jack Davis, Principal Investigator  
Sierra Research/Planning Associates  
Box 8083, University Station  
Reno, NV 89507 (702) 885-5090  
CONTRACT PERIOD : September 30, 1976 to December 31, 1976  
FUNDING LEVEL : Federal: \$24,512 Local: \$3,576 Total: \$28,088

### OBJECTIVES OR PURPOSES:

1. Assess the State Management Evaluation Reviews for Compliance (MERC) to determine the relative soundness and feasibility of continuing the program.
2. Determine ways in which the MERC process can be improved.
3. Identify state costs in preparing for, and participating in, the MERC program.
4. Identify the benefits to the states as the result of the MERC visits already conducted.
5. Provide a basis for recommendations for proficient procedures which may be implemented through state management evaluations proposed by forthcoming legislation.

### PROCEDURE OR APPROACH:

The procedure for conducting this assessment will involve personal interviews with approximately 60-75 people affected by MERC. These interviews will be conducted utilizing a predetermined interview schedule. The interviewees will be those persons who participated in the MERC reviews and those potentially affected by them. Of the eight states which have already been reviewed, the project staff will select five in which to conduct interviews. Additionally, the principal investigator will accompany the MERC team on one of their upcoming MERC visits in October or November of 1976. The results of these interviews and observations will be compiled and reported on a per item basis with recommendations for improvement as stated in the objectives.

### EXPECTED CONTRIBUTION TO EDUCATION:

This process assessment of MERC is expected to have wide-ranging influence on the improvement of vocational education program management in each state. It is the role of the state to provide leadership to local educational agencies, and this assessment will yield data and recommendations that will allow the states to improve their capabilities of leadership with LEA.

Additionally, the MERC process itself can possibly be made more streamlined and less costly through improvements.

## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60379

CONTRACT NUMBER: 300750236

PROJECT TITLE : Business and Management Education Program  
for Minority Women

PROJECT DIRECTOR : Lourdes Miranda King  
AND ORGANIZATION: L. Miranda and Associates  
35 Wisconsin Circle  
Suite 416  
Washington D.C. 20015 (301) 656-8685

CONTRACT PERIOD : July 1, 1975 to October 1, 1976

FUNDING LEVEL : Federal:\$7,000 Local: \$200 Total:\$7,200

### OBJECTIVES OR PURPOSES

For completion of on-going project, specifically preparation and Printing of Final Report, of Business and Management Education Program for Minority Women. The project has these objectives: (1) To equip potential women business owners and managers with information and techniques in the fundamental management skills which are common to functioning competently in a business ownership, corporate management or personal life management situation; (2) To stimulate interest in business and management careers; (3) To enable participants to examine their vocational and career potential.

### PROCEDURE OR APPROACH

This project, funded for \$111,312, assessed the needs of Hispanic women in the areas of business and management; conducted a survey of existing programs and materials; adapted existing resource materials; designed a training program; developed curriculum; selected instructional methods; planned, organized and coordinated field study (direct observation of existing businesses); developed trainer units, handouts and supporting instructional materials; delivered 60 hours of training to a pilot group of 43 Hispanic women; and evaluated program content and delivery.

### EXPECTED CONTRIBUTION TO EDUCATION

This project is significant for the vocational and career education of Hispanic women. It has been designed to be replicable throughout the United States to the estimated 6 million women of Hispanic origin, of which 50.1 percent between 25-29 years of age, have completed 4 years of high school (3 million women).

The pilot training demonstrated the effectiveness and success of the program, with the impressive rate of participant retention of 86 percent.



## PROJECT ABSTRACT

PROJECT NUMBER : 498AH60380 CONTRACT NUMBER: 300760468

PROJECT TITLE : Survey to Update Definitions of Vocational Education Programs for Revising the Document "Vocational Education and Occupations"

PROJECT DIRECTOR AND ORGANIZATION : Mr. Daniel B. Dunham  
Maryland Department of Education  
Division of Vocational Education  
P.O. Box 8717, BWI Airport  
Baltimore, MD 21240  
(301) 796-8300 x400

CONTRACT PERIOD : September 26, 1976 to June 26, 1977

FUNDING LEVEL : Federal: \$24,910 Local: \$251 Total: \$25,161

### OBJECTIVES OR PURPOSES:

The purpose of the project is to redefine the narrative descriptions of the vocational instructional program codes provided in the publication "Vocational Education and Occupations" as they relate to the "Dictionary of Occupational Titles" codes.

### PROCEDURE OR APPROACH:

- A. Appoint program manager to monitor, schedule, and compile various reports required in the study.
- B. Identify six to eight states and/or local experts in each occupational area to provide specific input in the program description.
- C. Distribute pertinent sections of VEO codes, titles, and definitions to selected states and/or local experts with instructions to research local program areas and recommend revisions in the definitions.
- D. Assemble each group of experts in Washington, D.C. by program area, to screen research activities and draft revised instructional program definitions.
- E. Prepare draft revision of each instructional program area definitions by major occupational area.
- F. Assemble selected local/state experts in each program to identify and/or resolve areas of specific conflict.
- G. Send combined draft of revised codes, titles, and programs to selected industries, business and professional associations, and state and local education agencies for comments.
- H. Prepare a final report from the input from the above areas to Health, Education, and Welfare.

### EXPECTED CONTRIBUTION TO EDUCATION:

Clarification of the coding system coupled with the identification of new and emerging occupations will assist in the drafting of new statements describing vocational education programming.



PROJECT ABSTRACT

PROJECT NUMBER : 498AH60413

CONTRACT NUMBER: 300760431

PROJECT TITLE : The Development of Sample Designs for the Follow-up of Vocational Education Graduates

PROJECT DIRECTOR : Dr. Lance Hodes, Director of Educational Services  
AND ORGANIZATION: Westat Research, Inc.

17  
street  
Maryland 20852

81-

CONTRACT PERIOD : October 1, 1976 through September 30, 1977

FUNDING LEVEL : Federal: \$24,474 Local: \$3,160 Total: \$27,634

OBJECTIVES OR PURPOSES. The major objectives of this project will be to:

- 1) Develop sample designs for each state and outlying area which would allow them to survey the vocational graduates and other vocational program completors in order to collect statistically valid data for program and policy needs;
- 2) Develop sampling procedures that will provide a process for the selection of the population to be followed-up; and
- 3) Provide a package of follow-up instruments that will be useful in the data collection process.

PROCEDURE OR APPROACH. In order to accomplish the project objectives four major activities comprising ten tasks will be undertaken. Activity I will develop the follow-up requirements by: reviewing the literature, defining follow-up issues, reviewing exemplary programs and defining terms. Activity II will develop a sample model, the individualized sample designs, and an instrument package for data collection. Activity III will provide for a small field review of the designs and procedures and Activity IV will report on the designs and the findings of the field review.

EXPECTED CONTRIBUTIONS TO EDUCATION. This contract will produce a sample design for each state to assist it in the conduct of follow-up studies to assess the effectiveness of its vocational education programs. These designs and the accompanying procedures and instruments for implementation will provide a basis for states that have not already done so, to begin to determine the quality of their vocational programs in an accurate, systematic, and cost effective manner. For those states that have already developed and have implemented follow-up programs, this will provide them with an additional resource that would allow them to strengthen their program and enrollment projections and their estimates of labor market supply. The overall impact on the quality of vocational program efforts should be a major benefit from this.

PROJECT NUMBER: L98AH60414

CONTRACT NUMBER: 300760432

PROJECT TITLE: MINORITY BUSINESS OWNERSHIP AND MANAGEMENT: A PILOT

EDUCATION AND TRAINING PROGRAM FOR PERSONS IN SOUTH CAROLINA CORRECTIONAL  
INSTITUTIONS

PROJECT DIRECTOR AND ORGANIZATION:

M. Lee Montgomery, Executive V. President  
SPECTRUM, INC.  
P. O. Box 11726/1518 Pine Street  
Columbia, South Carolina  
29211 803-254-6919

CONTRACT PERIOD: September 30, 1976 through September 30, 1977

FUNDING LEVEL: Federal: \$97,450 Local: \$4,644 Total: \$102,094

OBJECTIVES:

1. To design an education/training program which will demonstrate that selected inmates in the South Carolina Department of Corrections can with the necessary knowledge and skills pursue a career in small business ownership or management as a part of the rehabilitation process.
2. To demonstrate that Spectrum, with its consultants and its sub-contractors who have experience and expertise in ownership, operations and management of small businesses owned by disadvantaged persons, have the skills to motivate and train incarcerated persons on a selected basis to pursue a career in small business ownership or management.
3. To expand the options of the incarcerated person by introducing an education/training program in small business ownership and management which increases the opportunities of the disadvantaged persons and at the same time reducing unemployment for ex-offenders.

APPROACH:

The selected inmates in the South Carolina Department of Corrections will be given practical preparation in the acquisition of knowledge and skills in small business ownership or management. Intensive seminars will be conducted in motivation, self development, business planning, business development, financing, accounting, marketing, public relations and management.

The curriculum will be designed to impart knowledge and skills along with a bridge to business and industry assistance for practical implementation of small business opportunities.

An intensive counseling and career development program will be implemented to maximize small business ownership or management opportunities.

EXPECTED CONTRIBUTION TO EDUCATION:

To extent small business education/training as an integral part of the South Carolina Department of Corrections educational program. To have a selected number of inmates who will enter into small business ownership or management upon completion of their incarceration.

## PROJECT ABSTRACT

PROJECT NUMBER:

995AH50106

CONTRACT NUMBER: 300750363

TITLE:

A State Management Information System Needs Study and a National Needs Assessment of Career Guidance

PROJECT DIRECTOR:

Dr. Donald C. Findlay  
The Center for Vocational Education  
The Ohio State University  
Columbus, Ohio 43210 (614) 486-3655

CONTRACT DURATION:

July 1, 1975 - February 28, 1977

FUNDING LEVEL:

Federal: \$64,768 Local: \$4,200 Total: \$68,968  
(Initial Federal investment in project was \$428,000 in FY '75 + \$64,768 in FY '76 = \$492,768 total investment in project effort.)

OBJECTIVES

PURPOSES:

State MIS Needs Study: To (1) assess the extent to which States with Part C funded projects have improved their MIS capabilities; (2) assess the state of MIS developments in Part C funded States in comparison with non-funded States; (3) identify exemplary MIS systems or exemplary features of MIS in the States and constraints inhibiting the implementation or upgrading of MIS by States; and (4) produce a set of recommendations regarding future directions for meeting State management information system needs.

National Needs Assessment of Career Guidance: To conduct a national needs assessment of career guidance, K through adult, with particular emphasis on evaluating national progress in the establishment of comprehensive guidance, counseling, placement, and student follow-through systems.

PROCEDURES OR APPROACH:

State MIS Needs Study: Assessment will be made of changes in MIS capabilities in States funded under Part C for that purpose and differences in MIS comprehensiveness and utility between Part C funded and balance of States. Exemplary vocational education MIS or features of such systems in the States will then be identified as will constraints to implementation or upgrading of MIS by States. Recommendations will be made for upgrading MIS systems in the various States.

National Needs Assessment of Career Guidance: A national survey will be made of State comprehensive career guidance plans along with an identification of career guidance needs as reflected in a review and synthesis of the professional literature. These efforts will be followed by an identification of obstacles and impediments to the implementation of comprehensive career guidance, placement and follow-through services and an assessment of counselor education programs at colleges and universities. Findings will then be analyzed to identify exemplary career guidance methods, practices, comprehensive programs, and dissemination strategies as well as evaluation tools and techniques.

EXPECTED CONTRIBUTION TO EDUCATION:

1. The MIS study will provide a set of recommendations regarding future directions for meeting State management information system needs.
2. The Career Guidance study will identify needed changes in the training and retraining of career guidance professionals and paraprofessionals.

PROJECT ABSTRACT

PROJECT NUMBER: N/A

INTERAGENCY TRANSFER OF FUNDS

PROJECT TITLE: Public Vocational Education Information Assistance at the State Level

TECHNICAL ASSISTANCE ADVISOR Gail Tarleton  
AND ORGANIZATION: National Advisory Council on Vocational  
Education  
425 13th Street, N.W., Suite #412  
Washington, D.C. 20004  
(202) 376-8873

GRANT PERIOD: July 1, 1975-June 30, 1976

FUNDING LEVEL: Federal: \$37,000 Local: N/A Total: \$37,000

OBJECTIVES OR PURPOSES: Development of awareness of various aspects of vocational education among the many publics through local television and radio scripts, local communication centers, and billboard displays. Originally begun in 1970, this project has been continued on a yearly contractual basis until the present time.

PROCEDURE OR APPROACH: Development of films for television and radio public service announcements in cooperation with local people from selected cities and/or geographical areas based on local interests and demands. Production will be accomplished and expenses borne by local sponsors.

EXPECTED CONTRIBUTION TO EDUCATION: Sharpened articulation of vocational education goals; increased cooperation between education and industry; expanded public awareness of the vocational education option; and further appreciation of the characteristics of quality programming.

PROJECT ABSTRACT

PROJECT NUMBER: N/A

INTERAGENCY TRANSFER OF FUNDS

PROJECT TITLE: Development of School-to-Work Job Placement Curriculum

PROGRAM ANALYST Ruth Tangman

AND ORGANIZATION: National Advisory Council on Vocational Education  
425 13th Street, N.W., Suite #412  
Washington, D.C. 20004

CONTRACT DURATION: July 1, 1975 through March, 31, 1976

FUNDING LEVEL: Federal: \$25,000 Local: N/A Total: \$25,000

OBJECTIVES OR PURPOSES: To test the feasibility of providing school-based placement services on a wide-spread basis as a follow-through from previous Council deliberations with OE and OEO. Originally begun in FY 1972, the project has already proceeded through two of its three phases--research (November 1972-March 1974) and development and testing of curriculum materials for persons involved in establishment of school-based placement programs (July 1974-October 1975, phase conducted by the National Association of Industry-Education Cooperation). Projected timeline for third phase--July 1, 1975 through March 31, 1976. During phase III materials developed during the second phase will be disseminated under an agreement with the National Association for Industry-Education Cooperation.

PROCEDURE OR APPROACH: Materials will be presented to the state departments of education, followed by requests to the state departments for commitments to initiate training programs for placement specialists. Technical assistance in the establishment of such training programs will be made available upon request.

EXPECTED CONTRIBUTION TO EDUCATION: Provision of instructional materials for initiating or strengthening school-based placement programs for those school systems which wish to provide such services; determination of the feasibility of providing school-based placement services as part of the regular high school curriculum.

PROJECT ABSTRACT

PROJECT NUMBER: N/A

INTERAGENCY TRANSFER OF FUNDS

PROJECT TITLE: Monitorship of Project Baseline

PROGRAM ANALYST Ruth Tangman

AND ORGANIZATION: National Advisory Council on Vocational Education  
425 13th Street, N.W., #412  
Washington, D.C. 20004  
(202) 376-8873

GRANT PERIOD: July 1, 1975-June 30, 1976

FUNDING LEVEL: Federal: \$38,997 Local: N/A Total: \$38,997

OBJECTIVES OR PURPOSES: Project Baseline was begun in FY 1972 under the directorship of Arthur M. Lee who contracted with the Office of Education to conduct the study. Its objectives are (1) to establish and explore a data base for vocational education; (2) to identify and measure changes over the four years of Project Baseline's operation; and (3) to explore the use of computer technology in processing vocational education data on a national basis. The objectives of the monitorship of the Project by the National Advisory Council on Vocational Education are to advise and consult with the Project Director in implementation of Project Baseline, to see that it is fulfilling its contracted objectives, and that it is meeting its schedule.

PROCEDURE OR APPROACH: Project Baseline will submit reports, budget, and monthly schedules to the Council for approval. Any requests for change in procedure, budget, or scheduling will be reviewed by the Council. Project Baseline will collect data from state divisions of vocational education; state government divisions with responsibilities in general elementary and secondary programs, employment service, and finance; from Chief State School Officers and others. It will analyze FY 1974 data and subcontract for an analysis of all four years of data.

EXPECTED CONTRIBUTION TO EDUCATION: A national data base of vocational education information.

## PROJECT ABSTRACT

PROJECT NUMBER : N/A INTERAGENCY TRANSFER OF FUNDS NO.: A0076028

PROJECT TITLE : National Information System for Occupational and Adult Education

PROJECT DIRECTOR AND ORGANIZATION : Mr. Jerome Svore, Regional Administrator  
Environmental Protection Agency, Region VII  
1735 Baltimore St.  
Kansas City, MO 64108  
(816) 374-5493

PROJECT PERIOD : May 15, 1976 to September 15, 1977

FUNDING LEVEL : Federal: \$120,000 Local: N/A Total: \$120,000

OBJECTIVES OR PURPOSES: To develop an operational, prototype National Information System for Occupational and Adult Education (NISOAE) (in anticipation of the Vocational Education Amendments of 1976 - HR12835) which provides major policy makers for vocational education in America (the Congress, the National Advisory Council, the National Commission for Manpower Policy, the National Occupational Information Coordinating Committee, the National Institute for Education, the Bureau of Occupational and Adult Education, the United States Office of Education and the states) a hands-on experience from which to specify operational NISOAE, which simultaneously meets most of the information requirements for national planning and serves as a model for state planning.

PROCEDURE OR APPROACH: To develop an operational prototype on INFONET (the computer time sharing system of the National Center for Educational Statistics charged by the proposed Amendments with responsibility to operate NISOAE) which includes national, longitudinal data files that describe school-career relations (Project TALENT, the National Longitudinal Study and the Cooperative Institutional Research Program of the American Council on Education) and manpower projection data of the Bureau of Labor statistics with the EDSTAT files of NCES, to develop an index to these files so they can be easily accessed by policy makers; to develop a forecast capability to predict occupational education futures from knowledge of past school-career relationships (as described by data files organized together for the first time); to conduct workshops for policy makers named above; and to develop a report which specifies the information needs (including analytical modeling and computing requirements) of occupational education policy makers which result from direct experience on a "state of the art" system. Previous surveys will be reflected in the final report.

EXPECTED CONTRIBUTION TO EDUCATION: A national consensus on a specific blueprint for bringing on-line a national information system to support policy making for vocational education in America.